Form 3160-3
(December 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1 a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [ ] [X] OTHER - COALBED METHANE SINGLE ZONE [ ] MULTIPLE ZONE [ ]

5. LEASE DESIGNATION AND SERIAL NO.: Birch 49

6. IF INDIAN, ALLOTTEES OR TRIBE NAME:

2. NAME OF OPERATOR: ANADARKO PETROLEUM CORPORATION

7. UNIT AGREEMENT NAME:

3. ADDRESS AND TELEPHONE NO.: 17001 Northchase Drive, Houston, Texas 77060 281/875-1101

8. FARM OR LEASE NAME WELL NO.: Birch A-1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface: 1507 FSL & 856 FWL, SW Section 5, T14S R10E
At proposed prod. zone: 459 260
1507 FSL & 856 FWL, SW Section 5, T14S R10E

9. API WELL NO.:

10. FIELD AND POOL OR WILDCAT: Helper CBM

11. SEC. T,R,M, OR BLK. AND SURVEY OR AREA: Section 5, T14S R10E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE.: 2 miles N of Price, Ut

12. COUNTY: Carbon

13. STATE: Utah

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 856'

16. NO. OF ACRES IN LEASE: 159'

17. NO. OF ACRES ASSIGNED TO THIS WELL: 160

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE. FT.: 2500'

19. PROPOSED DEPTH: 2500'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5716' GR

22. APPROX. DATE WORK WILL START.: 1/28/97

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24	300'	200 cu. ft.
7 7/8"	5 1/2"	17	2500'	300 cu. ft.

Attached is the following:

1. Survey Plat
2. Drilling Plan with BOP Schematic.
3. Surface Use Plan.
4. Topo & Access Map & Area Map.
5. Pit & Pad Layout with cross sections of pit, pad, & rig layout.
6. Self-Certification of Operator.

The Cultural Resource Study will be submitted under separate cover.

RECEIVED
JAN 27 1997
DIV. OF OIL, GAS & MINING

IN ABOVE SPACE, DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
SIGNED: D.R. Winchester TITLE: D.R. Winchester, Division Drilling Engineer DATE: 1/15/97

(This space for Federal or State office use.)

PERMIT NO. 43-007-30348 APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations theron.
CONDITIONS OF APPROVAL IF ANY:

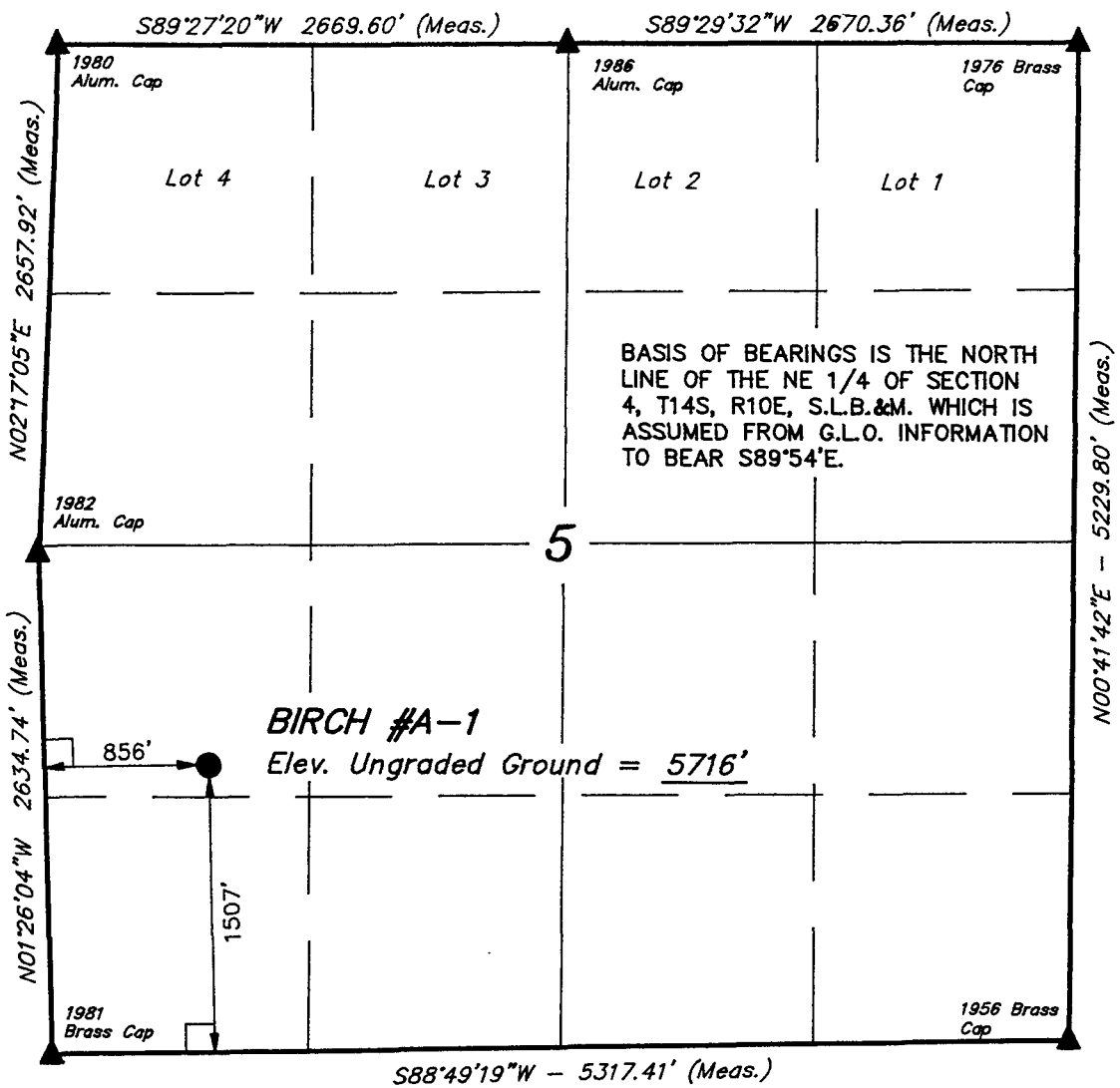
APPROVED BY: John R. Baza TITLE: Petroleum Engineer DATE: 4/17/97

See Instructions On Reverse Side

ANADARKO PETROLEUM CORP.

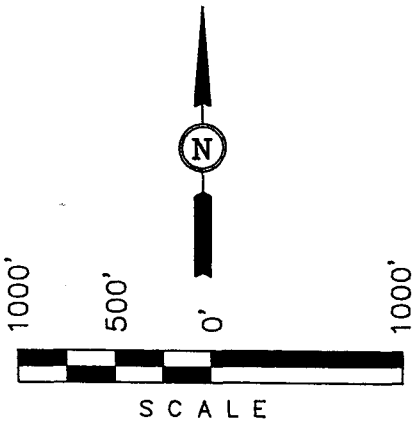
Well location, BIRCH #A-1, located as shown in the NW 1/4 SW 1/4 of Section 5, T14S, R10E, S.L.B.&M. Carbon County, Utah

T14S, R10E, S.L.B.&M.



BASIS OF ELEVATION

SPOT ELEVATION NEAR THE SOUTHEAST CORNER OF SECTION 34, T13S, R10E, S.L.B.&M. TAKEN FROM THE HELPER QUADRANGLE, UTAH, CARBON COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6350 FEET.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

Revised: 10-25-96 C.B.T.

LEGEND:

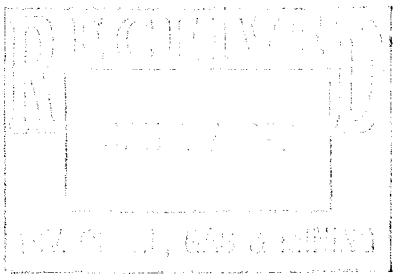
- └ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(801) 789-1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	9-24-96	10-1-96
PARTY: D.K. B.G. C.B.T.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: ANADARKO PETROLEUM CORP.	

ANADARKO PETROLEUM CORPORATION 17001 NORTHCHASE DRIVE • P.O. BOX 1330 • HOUSTON, TEXAS 77251-1330
TEL. (713) 875-1101

Anadarko



January 16, 1997

Mr. Frank Matthews
State of Utah
Division of Oil, Gas and Mining
1594 West North Temple
Suite 1210
Salt Lake City, Utah 84180-1203

RE:	Birch A-1	Helper State A-1	Helper State D-7
	Sec 5-14S-10E	Sec 3-14S-10E	Sec 4-14S-10E
	Carbon Co., Utah	Carbon Co., Utah	Carbon Co., Utah

Dear Mr. Matthews:

Attached you will find Applications for Permit to Drill on the above referenced three wells. Any required location exceptions will be sent next week.

Should you have any questions, please call me at (281) 873-1280.

Sincerely,

Dave Winchester

Dave Winchester
Division Drilling Engineer

DRW/ddg

Enclosures

xc: BLM - Moab, Utah
Trust Lands Administration - Salt Lake City

DRILLING PLAN
TO ACCOMPANY APPLICATION FOR PERMIT TO DRILL

Company: Anadarko Petroleum Corporation

Well: Birch A-1

Location: 1507' FNL & 856' FWL
SW Sec 5-T14S-R10E

Lease:

Surface Elevation: 5716'

A. Estimated Tops of Important Geologic Markers:

GEOLOGIC MARKER	DEPTH
Mancos / Emery	Surface
Bluegate Shale	915'
Ferron Sandstone	1915'
Ferron Coal Top	1945'
Base of Ferron Coal	2095'
Tununk Shale	2145'

B. Estimated Depth at which Water, Oil, Gas or other Mineral-Bearing zones are expected to be encountered:

Gas-bearing Ferron Coal is expected to be encountered from 1945'-2095'.

All fresh water zones and prospectively valuable mineral zones encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

C. Pressure Control Equipment:

A 9" 3000 psi WP double gate hydraulic BOP with pipe rams and blind rams will be installed on the 8-5/8" casinghead. The BOP stack will be tested prior to drilling below surface casing. The ram preventers will be tested to 70% of the working pressure of the casinghead. The annular will be tested to 50% of its working pressure. Operational checks will be made daily or on trips. A BOP schematic is shown on attached Exhibit "A".

The BOP system will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order. This inspection will be recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs. The accumulator system will meet IADC guidelines concerning pump capacities, storage capacity, and reservoir volume. Closing unit fluid volume will be sufficient to pre-charge the system to operating pressure plus 50% excess. One set of controls will be in the doghouse on the rig floor and one set will be remote on the drilling pad.

D. Casing Program

Surface Casing - 8-5/8" casing will be set at approximately 300'.

Production Casing - 5-1/2" casing will be set at approximately 2500' if well is to be completed.

	SIZE	WT./FT.	GRD.	THRD.	CONDITION
Surface	8-5/8"	24.0	K-55	8rd	New
Production	5-1/2"	17.0	K-55	8rd	New

Casing Design Factors

The safety factors on casing strings will equal or exceed the following values:

Collapse	1.0
Joint Strength	1.6
Burst	1.33

Cement Program

Surface - Cement will be circulated to the surface. Casing will be cemented with approximately 200 cu. ft. of API Class 'G' cement.

Production - Casing will be cemented with approximately 300 cu. ft. of API Class 'G" cement. The actual cement volume will be based upon hole depth and gauge, and will be determined from logs.

Additional additives will be used to retard the cement, accelerate the cement, control lost circulation, or control fluid loss. All cementing will be done in accordance with API cementing practices.

E. Mud Program and Circulating Medium:

Fresh water circulated through the reserve pit will be used for drilling the 12-1/4" surface hole to 300'. An air or air/mist system will be used for drilling from below surface pipe at 300' to TD.

The mud system will be visually monitored.

A truck-mounted air drilling rig may be used to drill the surface hole to 300' and to pre-set the surface casing before moving a drilling rig on location to drill the rest of the hole to TD.

Sufficient mud materials will be stored at the wellsite to maintain mud requirements and to control minor well control or lost circulation problems.

F. Coring, Logging, and Testing Program:

a. Rotary sidewall coring in the Ferron Sandstone interval (1915'-2145') may be performed, depending upon shows and hole conditions.

b. DST's may be run depending upon shows.

c. The following logging program is planned:

1. DIL-ML-SP-GR-CAL over prospective intervals.
2. SDL-CNL-GR-CAL over prospective intervals.

d. A mud logging unit with chromatograph will be used from approximately 300' to TD.

e. Productive zones will be swab tested. Water produced during testing will be contained in the temporary reserve pit. All produced oil will be stored and sold. Gas will be flared during testing.

G. Abnormal Conditions and Potential Hazards:

Abnormal conditions such as abnormal temperatures or pressures are not anticipated. Potential hazards such as H_2S are also not anticipated.

SURFACE USE PLAN
TO ACCOMPANY APPLICATION FOR PERMIT TO DRILL

Anadarko Petroleum Corporation
Birch A-1
1507' FSL & 856' FWL, SW Sec 5-T14S-R10E
Carbon Co., Utah

1. Existing Roads: See Map A and Map B.

   a. Location of proposed well in relation to town or other reference point: Location is approximately 2.0 miles north of Price, Utah.

   b. Proposed route to location: (See Map "A" for marked access).

   c. Location and description of roads in the area:
   (See Map "A" and Map "B").

   d. Plans for improvement and/or maintenance of existing roads: The existing roads will be maintained in the same or better condition as existed prior to the commencement of operations.

2. Planned Access Roads:

   a. The existing and proposed roads will be crowned, ditched or dipped from the existing County road to the location prior to use for moving the drilling rig onto the site. The maximum disturbed width will not exceed 30' with an eighteen foot running surface. Dust will be controlled by the use of water or an approved dust retardant. All roads, including access to drilling water, will be maintained in as good or better condition than existing condition.

   b. Maximum grades: Maximum grade will be less than 10%.

   c. Turnouts: None planned.

   d. Location: Access to the location uses an existing road up to the location. New road that will be constructed for access off of the existing road is flagged. (See Map B).

   e. Drainage: The road surface will be center crowned with ditches on each side of road. Slopes will have a maximum slope of 3:1.

   f. There will be no culverts placed in the ditchways during the drilling phase of operations. Further evaluation will be made for the additions of culverts if the road is to have long-term use.

   g. Surface materials (source): Surface materials will most likely not be required to be transported to the access road or drillpad for construction purposes. However, if gravel is required, the dirt contractor will be responsible for locating and permitting of any necessary construction material.

3. Location of Existing Wells: (2 mile radius)

The proposed Birch A-1 location is approximately 7700' southwest of the Helper Federal B-1.

4. Location of Tank Batteries and Production Facilities:

All permanent (on site for six months or longer) structures constructed or installed (including oil well pumpjacks) will be painted a flat, non-reflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain 5-State Interagency Committee. This will include all facilities except those required to comply with O.S.H.A. (Occupational Safety and Health Act) regulations. These will be painted the color stipulated by O.S.H.A. All facilities will be painted within six months of installation.

Gas meter runs for each well, if needed, will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Test for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The State of Utah will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to State of Utah. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

5. Location and Type of Water Supply:

Water supply for drilling and completion purposes will be furnished by a water hauler.

Water supply will be obtained from either the Price River or from Willow Creek.

6. Source of Construction Material:

Native material will be used for road surfacing and pad construction.

Should additional construction material be required, it will be the responsibility of the dirt contractor to locate and permit (if necessary) use of that material.

7. Methods of Handling Waste Disposal

The reserve pit will be lined.

Produced waste water will be confined to a lined pit for a period not to exceed 90-days after initial production.

Trash will be confined in a covered container and hauled to an approved landfill. Burning of waste or oil is not approved, and spoil material will be kept on site for recontouring.

No bore holes will be used for disposal of waste materials. Human waste will be contained and will be disposed of at an approved sanitary landfill.

8. Ancillary Facilities:

Not applicable for drilling operations in this area.

9. Wellsite Layout:

A plat showing access to the well-pad and the location of the reserve pit are attached.

The location and access road will be cleared of trees prior to any construction. Stumps will be scattered or buried in an area designated by the State of Utah. Any stump left in place will be cut so that the stump height does not exceed 12 inches. All slash less than four inches in diameter will be chipped or scattered outside the cleared area and must be within 24 inches of the ground at all points. All material four inches in diameter or greater will be removed. All of the above will take place prior to placement of drilling facilities.

Topsoil and vegetation will be stripped together to a depth of 6 to 8 inches and stockpiled by wind-row on the northeast edge of the location. No topsoil stripping will be allowed when soils are moisture saturated to a depth of 3 inches, or frozen below the stripping depth.

The reserve pit will be fenced on three sides prior to drilling activity and closed off on the fourth side after drilling is finished. Fencing will be four strands of barbed wire or 48-inch woven wire with one strand of barbed wire above the woven wire. All corners will be braced with a wooden H-type brace. The fence construction will be on cut or undisturbed ground and the fence will be maintained in a livestock tight condition.

10. Plans for Restoration of Surface:

The State of Utah will be notified at least 24-hours prior to commencing reclamation work.

Immediately upon completion of drilling, the location and surrounding area will be cleared of all debris, materials, trash, and junk not required for production.

Before any dirt work to restore the location takes place, the reserve pit must be completely dry and all cans, barrels, pipe, etc. will be removed.

If the well is a producer:

Unneeded areas of the location will be reclaimed as soon as the reserve pit has dried. Upgrade and maintain the access roads as necessary to prevent soil erosion and accommodate year-round traffic. Reshape areas unnecessary to operations, rip or disk on the contour, and seed all disturbed area outside the work area according to the seed mixture specified below. Save the topsoil for use during final reclamation unless the site can be recontoured to blend with the natural topography as required for final abandonment. Perennial vegetation must be established. Additional work will be required in case of seeding failures. All permanent facilities placed on the location will be painted to blend with the natural environment.

If the well is abandoned/dry hole:

Restore the access road and location to blend with the natural topography. During reclamation of the site, push the fill material into cuts and up over the backslope. Leave no depressions that will trap water or form ponds. Distribute topsoil evenly over the location and seed according to the above seed mixture. The access road and location will be ripped or disked prior to seeding.

Prepare seed-bed by contour cultivating four to six inches deep. Drill seed 1/2 to 1 inch deep following the contour. In areas that cannot be drilled, broadcast seed at 1.5 times the application rate and cover 1/2 to 1 inch deep with a harrow or drag-bar.

Fall seeding will be completed after September 1 and prior to ground frost. Spring seeding will be completed after the frost has left the ground and prior to June 1.

11. Other Information:

There will be no deviation from the proposed drilling and/or workover program without prior approval. Safe drilling and operating practices must be observed.

"Sundry Notice and Report on Wells" will be filed for approval for all changes of plans and other operations.

The dirt contractor will be provided with an approved copy of the surface use plan.

An archaeology inspection will be performed by an authorized contractor. Their report on this inspection will be sent directly to the State of Utah.

The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sties, or for collecting artifacts or fossils. The Operator will immediately bring to the attention of the State of Utah any and all antiquities or other objects of historic or scientific interest including, but not limited to, historic or prehistoric ruins, artifacts, or fossils discovered as a result of operations under this permit. The operator will immediately suspend all activities in the area of the object and will leave such discoveries intact until told to proceed by the State of Utah. Notice to proceed will be based upon evaluation of the cultural significance of the object. Evaluation will be by a qualified professional. When not practical, the Operator will follow the mitigation requirements set forth by the State of Utah concerning protection, preservation, or disposition of any sites or material discovered. Within five working days the State of Utah will inform the Operator as to:

Whether materials appear eligible for the National Register of Historic Places;

the mitigation measure(s) the Operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,

a time frame for the State of Utah to complete an expedited review to conform, through the State Historic Preservation Officer, that the findings are correct and that mitigation is appropriate.

If the Operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the State of Utah will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, in those situations where the State of Utah determines that mitigation, data recovery and/or salvage excavations are necessary, the Operator will bear the cost. The State of Utah will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the State of Utah that the required mitigation has been completed, the Operator will then be allowed to resume construction.

12. Lessee's or Operator's Representatives and Certification:

REPRESENTATIVE

Name: Dave Winchester
Phone: 281/873-1280

Address: Anadarko Petroleum Corporation
17001 Northchase Drive
Houston, Texas 77060

CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which currently exist, that the statements made in this plan are to the best of my knowledge, true and correct, and that the work associated with the operations proposed herein will be performed by

ANADARKO PETROLEUM CORPORATION

and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

3/27/97
Date

Dave Winchester
Division Drilling Engineer

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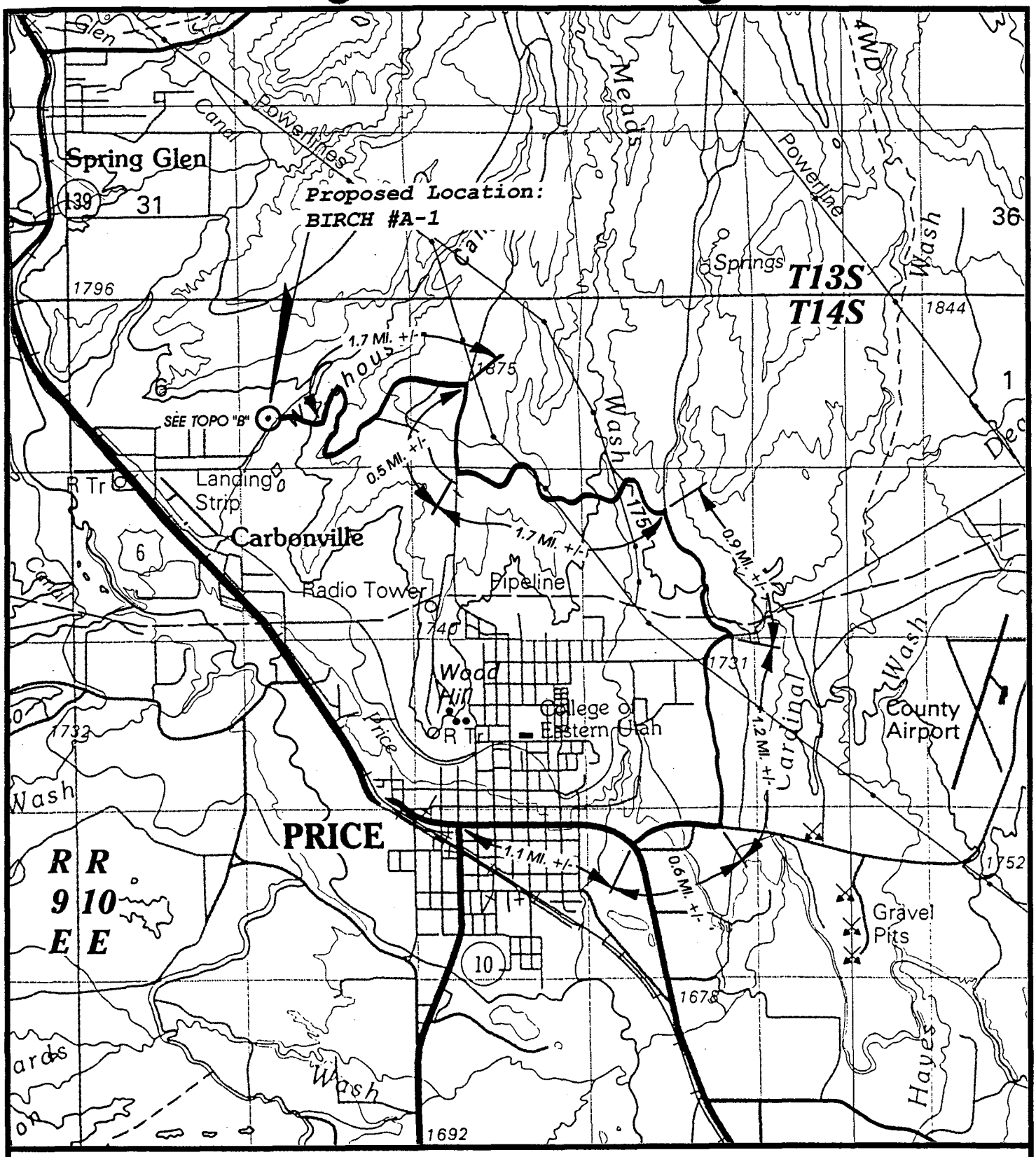


TOPOGRAPHIC MAP "A"

DATE: 10-6-96
Drawn by: D.COX

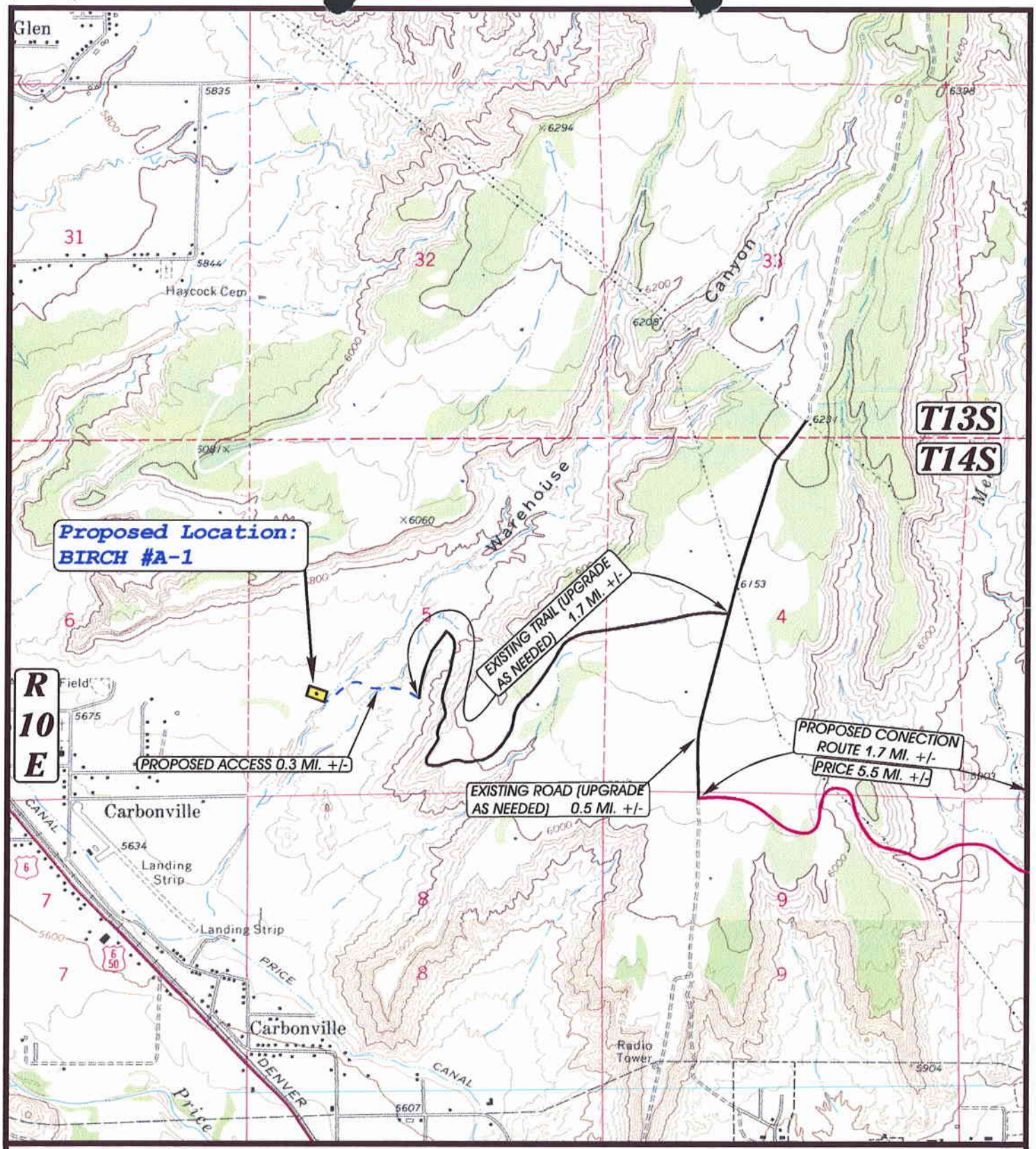
UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017

SCALE: 1" = 4000'

ANADARKO PETROLEUM CORP.

BIRCH #A-1
SECTION 5, T14S, R10E, S.L.B.&M.
1507' FSL 856' FWL

REVISED: 10-23-96 D.COX



UELS

TOPOGRAPHIC MAP "B"

DATE: 10-4-96

Drawn by: D.COX

REVISED: 10-23-96 D.COX

UINTAH ENGINEERING & LAND SURVEYING

85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017

N

SCALE: 1" = 2000'

ANADARKO PETROLEUM CORP.

BIRCH #A-1

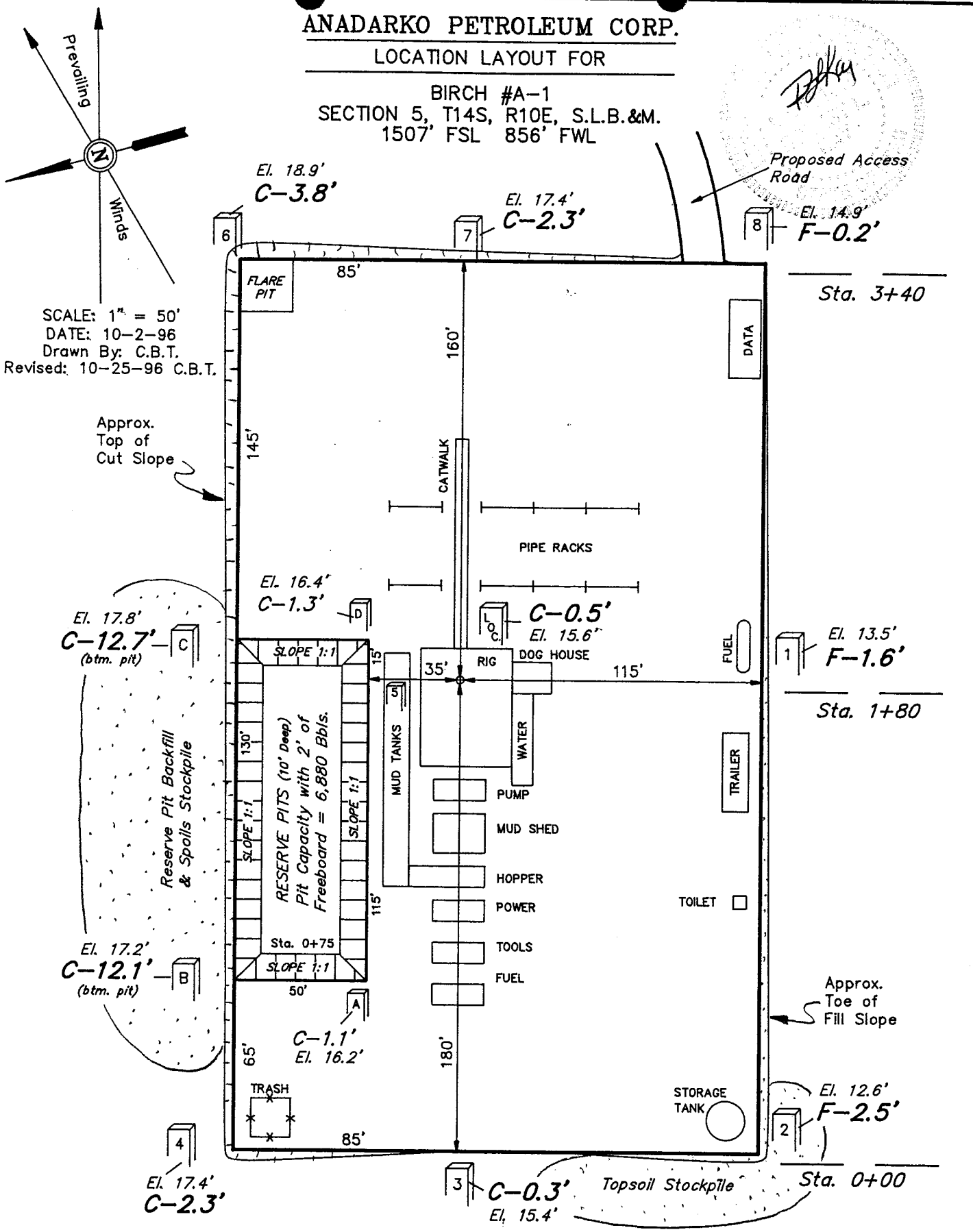
SECTION 5, T14S, R10E, S.L.B.&M.

1507' FSL 856' FWL

ANADARKO PETROLEUM CORP.

LOCATION LAYOUT FOR

BIRCH #A-1
SECTION 5, T14S, R10E, S.L.B.&M.
1507' FSL 856' FWL



ELEV. UNGRADED GROUND AT LOC. STAKE = 5715.6'
ELEV. GRADED GROUND AT LOC. STAKE = 5715.1'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East Vernal, Utah

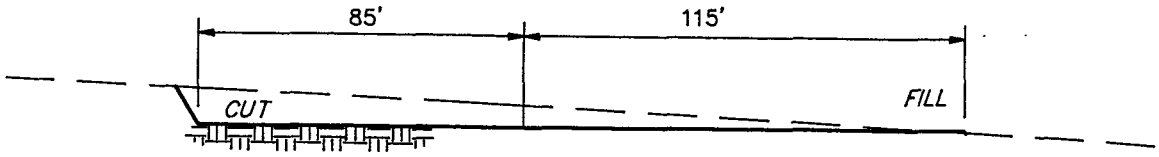
ANADARKO PETROLEUM CORP.

TYPICAL CROSS SECTIONS FOR

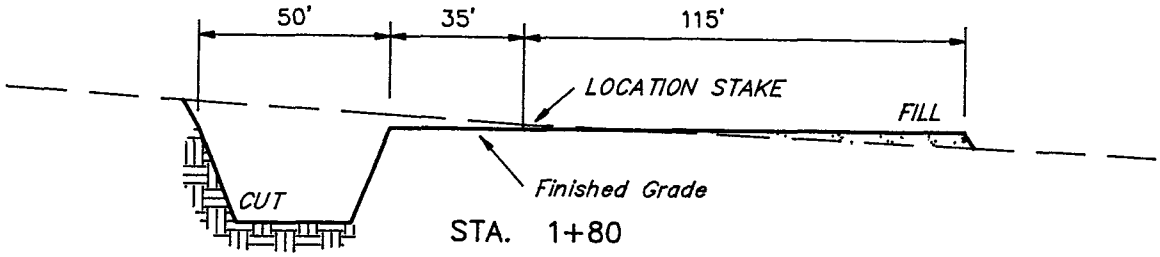
BIRCH #A-1
SECTION 5, T14S, R10E, S.L.B.&M.
1507' FSL 856' FWL

1" = 20'
X-Section Scale
1" = 50'

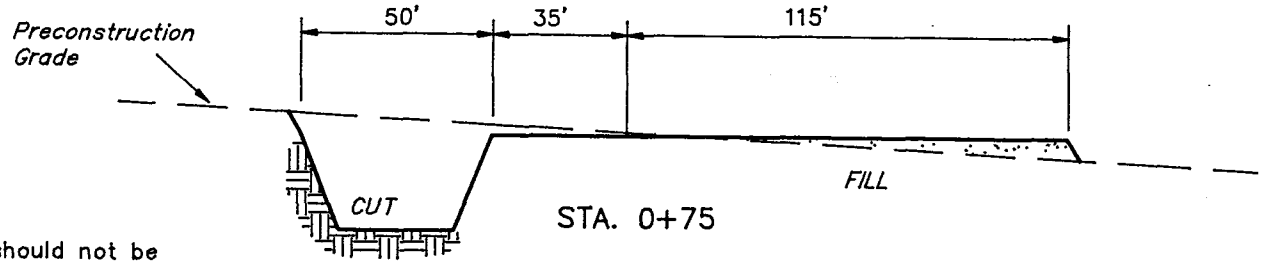
DATE: 10-2-96
Drawn By: C.B.T.
Revised: 10-25-96 C.B.T.



STA. 3+40

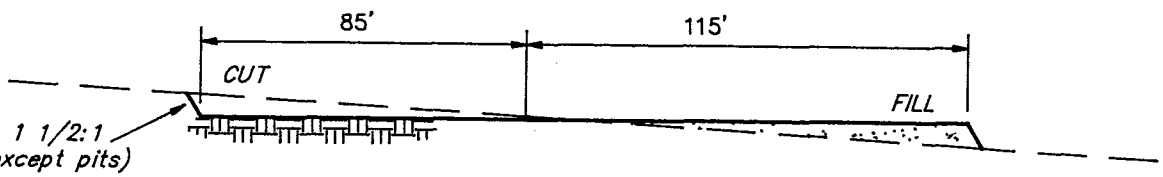


STA. 1+80



STA. 0+75

NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.



STA. 0+00

APPROXIMATE YARDAGES

CUT

(6") Topsoil Stripping	=	1,300 Cu. Yds.
Remaining Location	=	3,320 Cu. Yds.
TOTAL CUT	=	4,620 CU.YDS.
FILL	=	1,430 CU.YDS.

EXCESS MATERIAL AFTER 5% COMPACTION	=	3,110 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	2,190 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	=	920 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East Vernal, Utah

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 01/17/97

API NO. ASSIGNED: 43-007-30348

WELL NAME: BIRCH A-1
OPERATOR: ANADARKO PETROLEUM CORP (N0035)

PROPOSED LOCATION:
NWSW 05 - T14S - R10E
SURFACE: 1507-FSL-0856-FWL
BOTTOM: 1507-FSL-0856-FWL
CARBON COUNTY
UNDESIGNATED FIELD (002)

LEASE TYPE: FEE
LEASE NUMBER:

PROPOSED PRODUCING FORMATION: FRSD

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering	JRB	4/7/97
Geology		
Surface		

RECEIVED AND/OR REVIEWED:

✓ Plat
✓ Bond: Federal [] State [✓] Fee [✓]
(Number ~~22435~~ 20362✓)
H Potash (Y/N)
N Oil shale (Y/N)
✓ Water permit
(Number COMMERCIAL SUPPLIER)
✓ RDCC Review (Y/N)
(Date: 2-19-97)

LOCATION AND SITING:

___ R649-2-3. Unit: _____

___ R649-2-3. General.

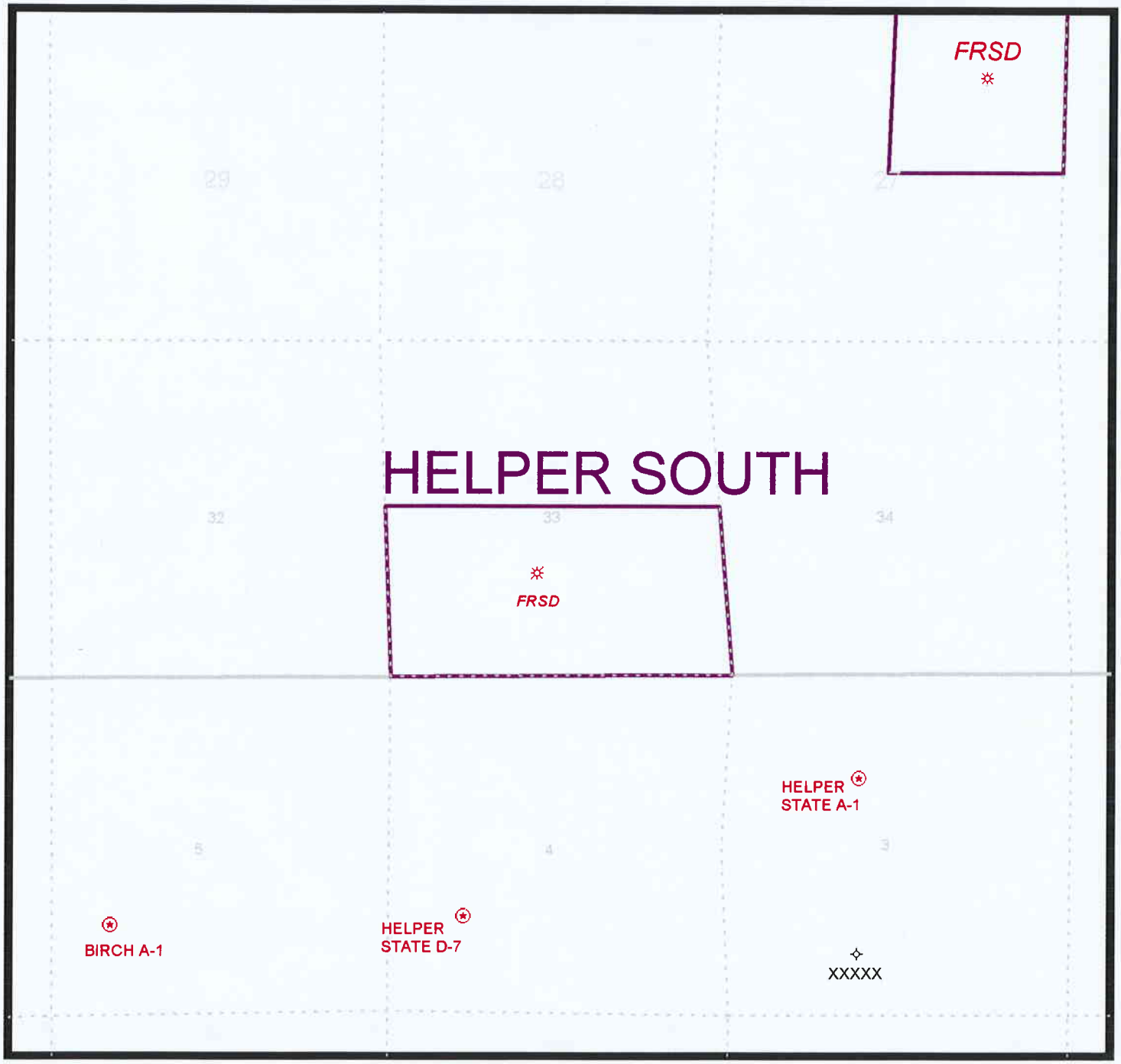
✓ R649-3-3. Exception.

___ Drilling Unit.
Board Cause no: _____
Date: _____

COMMENTS: CASING DESIGN OK

STIPULATIONS: STATEMENT OF BASIS

OPERATOR: ANADARKO
FIELD: UNDESIGNATED (002)
SECTION: 3,4,5, T14S, R10E
COUNTY: CARBON
UAC: R649-3-3



PREPARED:
DATE: 21-JAN-97

DIVISION OF OIL, GAS AND MINING
APPLICATION FOR PERMIT TO DRILL
STATEMENT OF BASIS

Operator Name: Anadarko Petroleum Corp

Name & Number: Birch A - 1

API Number: 43 - 007 - 30348

Location: 1/4,1/4 NWSW Sec. 5 T. 14 S R. 10 E

Geology/Ground Water:

An aquifer may be encountered within 100' of the surface. Garley Canyon Sandstone Beds of the Blue Gate Shale Member of the Mancos Shale thin or pinch out nearby so they should not present a significant ground water resource and are also stratigraphically suprajacent to the surface strata. The proposed casing and cement program should adequately isolate any zones of water penetrated.

Reviewer: Christopher Kierst and K. Michael Hebertson **Date**: 3/5/97

Surface:

The possible ground water resource and moderately to highly permeable soil militates the need for the protection of a lined pit. Precipitation will be deflected around the location with berms and culverts. There are no nearby culinary or irrigation water supply wells. A water right is recorded about 0.33 mile south of the pad at a spring along Warehouse Canyon (SE NE NE NE S7, T14S, R10E, SLBM). Provision was made to ensure site rehabilitation, litter and waste control, preservation of drainage patterns and the integrity of local infrastructure, groundwater and other resources. Power lines and gathering systems will follow access roads. **A 404 dredge and fill permit may be needed for crossing two arroyos (Warehouse Canyon drainage) southeast of the pad . A flashflood hazard exists associated with these arroyos which could affect site infrastructure.** Inclement weather and snow cover necessitated the use of existing mapping and past experience in similar geologic settings as a substitute for visual characterization of the surficial geology at the location. This Statement of Basis reflects a level of confidence commensurate with the conditions at the time of the onsite meeting. The Division received comments from the Division of Wildlife Resources by letter dated March 11, 1997. They revealed in the letter several concerns, recommendations and proposals the nature of which largely go beyond what this Division currently views as permissible for including as drilling permit stipulations.

Reviewer: Christopher Kierst and K. Michael Hebertson **Date**: 3/5/97

Conditions of Approval/Application for Permit to Drill:

1. Recommend culverts sufficient to manage expected runoff, standing and surface water in crossed drainages.
2. Berm location and pit.
3. Site infrastructure as per modified drilling location plat.
4. Minimum 12 mil synthetic lined pit.
5. Soil storage as per modified drilling location plat.
6. Reclaim unnecessary road loops created by more directly accessing location to facilitate ingress while preserving road net, as per SITLA.

ON-SITE PREDRILL EVALUATION

Division of Oil, Gas and Mining

OPERATOR: Anadarko

WELL NAME & NUMBER: Birch A - 1

API NUMBER: 43-007-30348

LEASE: Hilma Birch FIELD/UNIT: Wildcat

LOCATION: 1/4,1/4 NWSW Sec: 5 TWP:14S RNG:10E 1507 FSL 856 FWL

LEGAL WELL SITING: 460F SEC. LINE; F 1/4,1/4 LINE; 920 F ANOTHER WELL.

GPS COORD (UTM): x = 514579; y = 4387050

SURFACE OWNER: Hilma Birch

PARTICIPANTS

M. Hebertson, C. Kierst, Jeff Duncan (Anadarko), Steve Gray (TN Construction), David Kay (Uintah Engineering). SITLA land managers were consulted but were unable to attend the presite. DWR personnel were unable to attend. The surface owner declined participation on two occasions.

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Western margin of Colorado Plateau/~4 miles south of the Tavaputs Plateau and 4 miles south of the 1000-1500' Book Cliffs. Location is on an outwash plane at the mouth of Warehouse Canyon on Quaternary slope-wash. Slope-wash occurs as broad, gently sloping (southwest) sheets locally containing valley fill and occur below, between and beside low, pediment mantle-veneered benches, west, north and east of the city of Price,UT, 4 miles south of the Book Cliffs. Location is on open, relatively level ground beside a 15' deep tributary of Warehouse Canyon.

SURFACE USE PLAN

CURRENT SURFACE USE: Grazing, recreation and wildlife habitat

PROPOSED SURFACE DISTURBANCE: 340' X 300' pad with 130' X 50' X 10' pit included as part of the location. 4.2 miles of approach road and upgrades needed. Spoils and topsoil stockpiles and reserve pit backfill pile will be stored outboard of the pad.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: None

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: Powerline and gathering system follow approach road.

SOURCE OF CONSTRUCTION MATERIAL: Native material will be used to gravel approach road and location. Any additional material will be acquired from TN Construction sources.

ANCILLARY FACILITIES: None

WASTE MANAGEMENT PLAN:

Portable toilets; garbage cans on location will be emptied into centralized dumpsters which will be emptied into an approved landfill. Reserve pit will be dried after use and then buried. Water produced during testing and completion will be stored in a lined temporary reserve pit and disposed of by injection, reverse osmosis or evaporation.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: Price Canal is ~0.75 miles southwest. Price River is ~1.25 miles southwest. State Division of Water Rights personnel (Mark Page of Price, UT-?) should be included in activities and planning to clear areas for compliance with 404 Dredge and Fill Permit requirements.

FLORA/FAUNA: Sagebrush, indian rice grass, broom snakeweed, winterfat, greasewood, shadscale, blue gramma, dryland sedge, elymus species, salina wild rye, cactus, / birds, coyotes, rodents, golden eagle nests, reptiles. Inclement weather and snow cover necessitated the use of past experience in similar environments as a substitute for visual characterization of the flora / fauna at this location. See Comment 15.

SOIL TYPE AND CHARACTERISTICS: Unconsolidated, moderately to highly permeable soil developed on a Quaternary slope-wash veneer overlying the Blue Gate Shale Member of the Cretaceous Mancos Shale. Grain sizes range from clay to pebbles. Inclement weather and snow cover necessitated the use of existing mapping and past experience in similar geologic settings as a substitute for visual characterization of the soil permeability at this location. See Comment 15. (GM-SM)

SURFACE FORMATION & CHARACTERISTICS: Quaternary slope-wash veneer (grain sizes range from clay to pebbles) overlying the light gray, bentonitic Blue Gate Shale Member of the Mancos Shale. Inclement weather and snow cover necessitated the use of existing mapping and past experience in similar geologic settings as a substitute for visual characterization of the surficial geology at the location. See Comment 15.

EROSION/SEDIMENTATION/STABILITY: Currently stable but near flashflood hazard in Warehouse Canyon drainage. Southeast corner of pad is ~10' from side of arroyo (15' deep) with the planned access road entering the pad near that corner after crossing the arroyo obliquely from the northeast. Flashflooding may cause problems with the road and that corner of the pad, potentially washing out the berm and undermining the pad at its ingress.

PALEONTOLOGICAL POTENTIAL: Paleontologists at UGS know of no fossil resource at any of the sites as quoted to them by 1/4 1/4 1/4 (pursuant to request on 3/7/97, pers. comm. via voicemail w/ Martha Hayden of UGS, 3/10/97). Inclement weather and snow cover necessitated the use of existing mapping and past experience in similar geologic settings as a substitute for visual characterization of the paleontology at the location. See Comment 15.

RESERVE PIT

CHARACTERISTICS: 130' X 50' X 10' excavated pit bermed to deflect runoff.

LINER REQUIREMENTS (Site Ranking Form attached): Minimum 12 mil synthetic liner

SURFACE RESTORATION/RECLAMATION PLAN

None

SURFACE AGREEMENT: **No surface owner's agreement or affidavit tendered yet.**

CULTURAL RESOURCES/ARCHAEOLOGY: Cleared and on-file.

OTHER OBSERVATIONS/COMMENTS

Items discussed included: 1) Increasing the scope of the information presented in association with future APD's when APD's are part of a larger project with much larger infrastructure plan. 2) Need for crossover roads. 3) Need for large pads. 4) Location of power lines and gathering system. 5) Need for consultation with affected municipalities. 6) Reclamation of unnecessary road segments of existing two-track jeep trails created by more directly accessing location. 7) Minimizing access road sinuousity and spurrious loops. 8) Startups after April 15, 1997 as per DWR. 9) Drilling restrictions after December 1, 1997 as per DWR. 10) Include State Division of Water Rights personnel (Mark Page of Price, UT-?) in activities and planning to clear areas for compliance with 404 Dredge and Fill Permit requirements. 11) Investigate the use of existing access infrastructure. 12) Need to properly draft the APD documentation to

DOGM rather than BLM when the locations are on state leases 13)Need to explicitly state the source of the water supply. 14)All wells not sited within an approved state 40 acre location will require an exception to location and siting request. 15)The characterizations of the several environmental parameters presented in this document should be employed with a degree of caution commensurate with the conditions at the time of the presite.

ATTACHMENTS:

Three photos

K. Michael Hebertson and Christopher Kierst	2/27/97 PM
DOGM REPRESENTATIVE	DATE/TIME

Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements

Site-Specific Factors	Ranking	Site Ranking
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	10
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	0
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	15	
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	0
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	15
Fluid Type		
Air/mist	0	
F resh Water	5	
TDS >5000 and <10000	15	
TDS >10000 or Oil Base	20	
Mud Fluid containing high levels of hazardous constituents		0
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	0
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	5
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	10
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	15
Final Score (Level I Sensitivity)		55

4-11-97
JRB

David Hudspeth (281) 874-8814
fax (281) 873-1326

- According to the information which he has, Anadarko controls all acreage in Sections 3, 4, and 5 of T.14S, R.10E., Carbon Co.
- I instructed him to send in a document which states their ownership and I will approve the APD on that basis.

4-8-91
JRB

Anadarko - Helper State D-7 Also, Helper State A-1 and Birch A-1

Casing Evaluation

Production casing:

Max mud wt = 10.0 ppg (estimated)

BHP = (10 X 0.052 X 2700)

= 1404 psi

Burst str. of 5½", 17#, K-55 = 5,320 psi

Burst S.F. = $\frac{5320}{1404} = 3.79$

Collapse str. of 5½", 17#, K-55 = 4910

Collapse SF = $\frac{4910}{1404} = 3.50$

Weight of string = (17 X 2700) = 45,900

St. str. of 5½", 17#, K-55, STC = 252,000

Tension SF = $\frac{252,000}{45,900} = 5.49$

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE RESOURCES

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
Robert G. Valentine
Division Director

1596 West North Temple
Salt Lake City, Utah 84116-3195
801-538-4700
801-538-4709 (Fax)

March 11, 1997

Jim Carter
Director
Utah Division of Oil, Gas, and Mining
1594 West North Temple
Salt Lake City, Utah 84114-5801

ATTENTION: Michael Hebertson

Subject: RDCC Agenda 3-11-97 Applications for 3 Permits to Drill--Carbon County
Action Item #21 Birch #A-1
Action Item #22 Anadarko Helper State A-1
Action Item #23 Helper State #D-7

Dear Jim:

Utah Division of Wildlife Resources has reviewed the subject drilling projects, all of which lie within critical and high-priority valued deer winter range. In order to lessen direct losses to winter range habitats, we recommend that well site development, pipeline right-of-way development, and road construction be limited to only what is absolutely needed for these three well sites. It is important to note that due to human disturbance between December 1 and April 15, habitats with in a 0.5 mile radius of wells and access roads are used far less by wintering big game than undisturbed areas, resulting in an indirect loss of habitat. Once the field is defined through drilling, a suitable transportation and pipeline right-of-way system can be designed.

Wildlife forage in many continuous stands of pinyon/juniper forest can benefit greatly from canopy removal and revegetation with an appropriate prescription. However, the limiting factor in this project area is thermal and hiding cover offered by the pinyon/juniper trees and/or forage offered by mature shrubs big enough to remain above snow fall. The large number of proposed well sites in this field with their associated pipeline right-of-way systems and road systems further increases the value and need for cover. Disturbed areas will need to be reseeded immediately following facility installation.

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The proposed transportation system shows more road development than is needed for these initial three wells and until the gas field is better defined there does not exist need for additional roads. There are several existing roads in the area that should be used before new roads are constructed. The power line right-of-way road should be used to cross the project area from east to west. Access to Helper State #D-7, should use the existing road north of Price or the power line right-of-way road. If feasible the road to Birch #A-1 should come in from the west.

Pipeline right-of-ways should parallel existing roads, which will lessen habitat impacts and facilitate ease in maintenance. If possible the pipeline from D-7 or the west side, to the processing point should wait until a need is established. We are concerned the pipeline to the processing point is being used to put in a new road. The proposed pipeline route is circuitous and joins the existing road nearly a mile south of the processing plant.

The pad sizes are almost twice the size of pads used by other companies and need to be kept to a minimum size. The possibility of using a larger sized pad and then reseeding immediately after rig removal was discussed during an onsite inspection on February 27. An onsite inspection of D-7 on March 11 showed that the pad is almost exclusively in mature shrubs, which are of critical importance to big game during winter periods. Translocating shrubs that are two years old or younger (older shrubs will not survive transplanting) from areas to be disturbed to nearby suitable sites may be of merit, since the value of reseeding as it relates to the shrub community would not be realized in these areas until they regrew to the mature state that is already found at the site.

We are concerned with the lack of plans on state lands to avoid, minimize and/or mitigate for impacts associated with development, maintenance, and operation of the well field. We would appreciate the opportunity to work with Anadarko in developing a mitigation plan. A mitigation proposal needs to be prepared addressing the following issues:

- Procedures designed to avoid or minimize disturbance to wintering big game between the period December 1 to April 15 as follows:

  (1) Initial construction, road building, drilling, or other development activities associated with the wells should be completed outside the winter period.
  (2) Routine maintenance work requiring heavy equipment should be completed outside the winter period.

(3) Access roads to the wells need to be gated to restrict (we would prefer completely closed off) unauthorized vehicular access during the winter period. (4) Monitor, to the extent possible, producing wells using telemetry, which will reduce needed visits to the actual site during winter periods.

- Methodology and practices designed to compensate for long-term direct and indirect impacts to big game winter range habitat. For example translocation of individual mature browse plants that are situated in harms way. Additionally, a suitable amount of habitat must be enhanced to replace the habitat units directly and indirectly lost. This can be determined by HEP analysis, and typically requires 3 acres of enhancement for each impacted acre. This effort should include assessing use of raw water obtained from the wells or treating it to lessen dissolved solids in order for the company to sprinkler irrigate habitats proximal to well sites to enhance forage conditions and lure big game into disturbance areas they prefer not to use.

- Secure a sufficient reclamation bond, which should include the development of an reclamation plan that addresses sequential road closures, including an appropriate revegetation prescription for the areas interim and final reclamation, .

We appreciate the opportunity to review these gas well proposals and provide comments. Please coordinate with Bill Bates--Habitat Manager--or Ben Morris--Habitat Biologist--at our Southeastern Regional Office (801-637-3310) in Price, Utah.

Sincerely,

Ralph A. Morgan for

John Kimball
Acting Director

cc: Carolyn Wright, RDCC (Agenda 3-11-97, Items 21, 22, 23)

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State of Utah
School and Institutional
TRUST LANDS ADMINISTRATION

Michael O. Leavitt
Governor
David T. Terry
Director

675 East 500 South, Suite 500
Salt Lake City, Utah 84102-2818
801-538-5100
801-355-0922 (Fax)

April 2, 1997

Via Facsimile 359-3940

Mr. James W. Carter, Director
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114

Re: Applications for Permit to Drill -- Birch #A-1, Anadarko Helper State # A-1, Helper State # D-7 Wells

Dear Jim:

The School & Institutional Trust Lands Administration (the "Trust Lands Administration") has obtained a copy of a March 11, 1997 letter to you from John Kimball, the Acting Director of the Utah Division of Wildlife Resources ("DWR"), concerning the above-referenced wells. In his letter, Mr. Kimball asks that the Division of Oil, Gas & Mining ("DOGM") limit wellsite development and associated activities in connection with the proposed wells, and require an extensive mitigation plan to address perceived impacts upon big game.

Two of the three proposed wells are located upon state school trust lands, and the third is located on federal lands. Under DOGM rule R649-3-34, surface impacts caused by oil and gas activities on state lands are governed by the requirements of the surface management agency, i.e the Trust Lands Administration. The limitations proposed by DWR go well beyond conditions that have traditionally been imposed by DOGM, and are arguably beyond DOGM's jurisdiction (particularly with regard to off-site actions and mitigation). We believe that it would be inappropriate for DOGM to impose any of the requested limitations without serious and substantive consultations with this agency.

The Trust Lands Administration is not averse to reasonable measures to protect wildlife in connection with mineral development on school trust lands. However, DWR has never at any point directly raised the concerns set forth in Mr. Kimball's letter with the Trust Lands Administration, and did not choose to inform us of the letter to DOGM. We request that DOGM refer DWR to this agency for resolution of this and any future surface use issues involving wildlife on trust lands. If DOGM does intend at any time to impose non-standard restrictions on oil & gas lessees of school trust lands, we would also appreciate the opportunity to comment.

Please feel free to call me at 538-5101 if you have any questions, and thank you for your assistance.

Sincerely yours,

David T. Terry
Director

cc: Ted Stewart
John Kimball
Anadarko Petroleum Corp.

MEMORANDUM

Anadarko Petroleum Corporation
Houston, Texas

To: Mike Hebertson	**Date:** Wednesday, March 26, 1997
From: David H. Hudspeth - Staff Drlg. Eng.	**CC:** Winchester
Subject: APC-Permits To Drill	**Pages to Follow:** 1

The attached is a "Location Layout Schematic" showing the original location and the modified location size (dotted line). The new location size is 180' in width and 270' in length. Hopefully this with the revision of the "Surface Use Plan" will be adequate in obtaining APD's for the Birch and Helper wells.

Please advise if any questions or comments should arise. I can be reached at 281-874-8814 or by fax at 281-873-1326.

D.H.Hudspeth

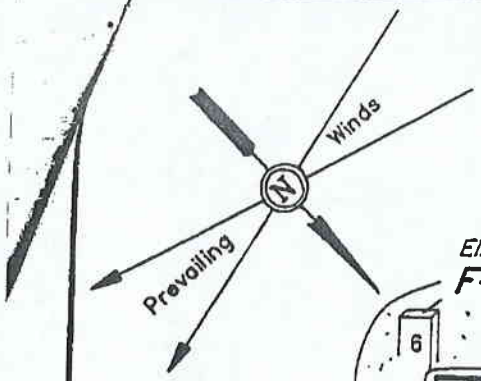
dhh/dhh

C:\MEMOS\DHH\UTAH_APD.DOC

ANADARKO PETROLEUM CO.

LOCATION LAYOUT FOR

HELPER STATE #A-1
SECTION 3, T14S, R10E, S.L.B.&M.
1621' FNL 2019' FWL



SCALE: 1" = 50'
DATE: 9-18-96
Drawn By: C.B.T.

El. 35.8'
F-2.6'

Topsoil Stockpile

El. 34.9'
F-3.5'

El. 29.2'
F-9.2'

Sta. 3+40

FLARE PIT

85'

DATA

160'

120

180'

145'

CATWALK

PIPE RACKS

Approx. Toe of Fill Slope

El. 39.9'
C-1.5'

C-1.6'
El. 40.0'

El. 40.2'
C-11.8'
(btm. pit)

SLOPE 1:1

15'

35'

RIG

DOG HOUSE

115'

FUEL

El. 39.0'
C-0.6'

Sta. 1+80

130'

MUD TANKS

WATER

PUMP

Trailer

TRAILER

RESERVE PITS (10' Deep)
Pit Capacity with 2' of Freeboard = 6,880 Bbls.

SLOPE 1:1

MUD SHED

200

186'

HOPPER

POWER

TOILET

TOOLS

FUEL

115'

Sta. 0+75

50'

SLOPE 1:1

Reserve Pit Backfill & Spoils Stockpile

El. 42.6'
C-14.2'
(btm. pit)

Approx. Top of Cut Slope

C-5.9'
El. 44.3'

65'

TRASH

180'

150

Existing Small Drainage

346'

270'

STORAGE TANK

1.7ac
340x200 = 68,000
270x180 = 48,600
1.2ac

Reduced by ≈30%

El. 45.6'
C-7.2'

Sta. 0+00

85'

El. 44.5'
C-6.1'

C-3.5'
El. 41.9'

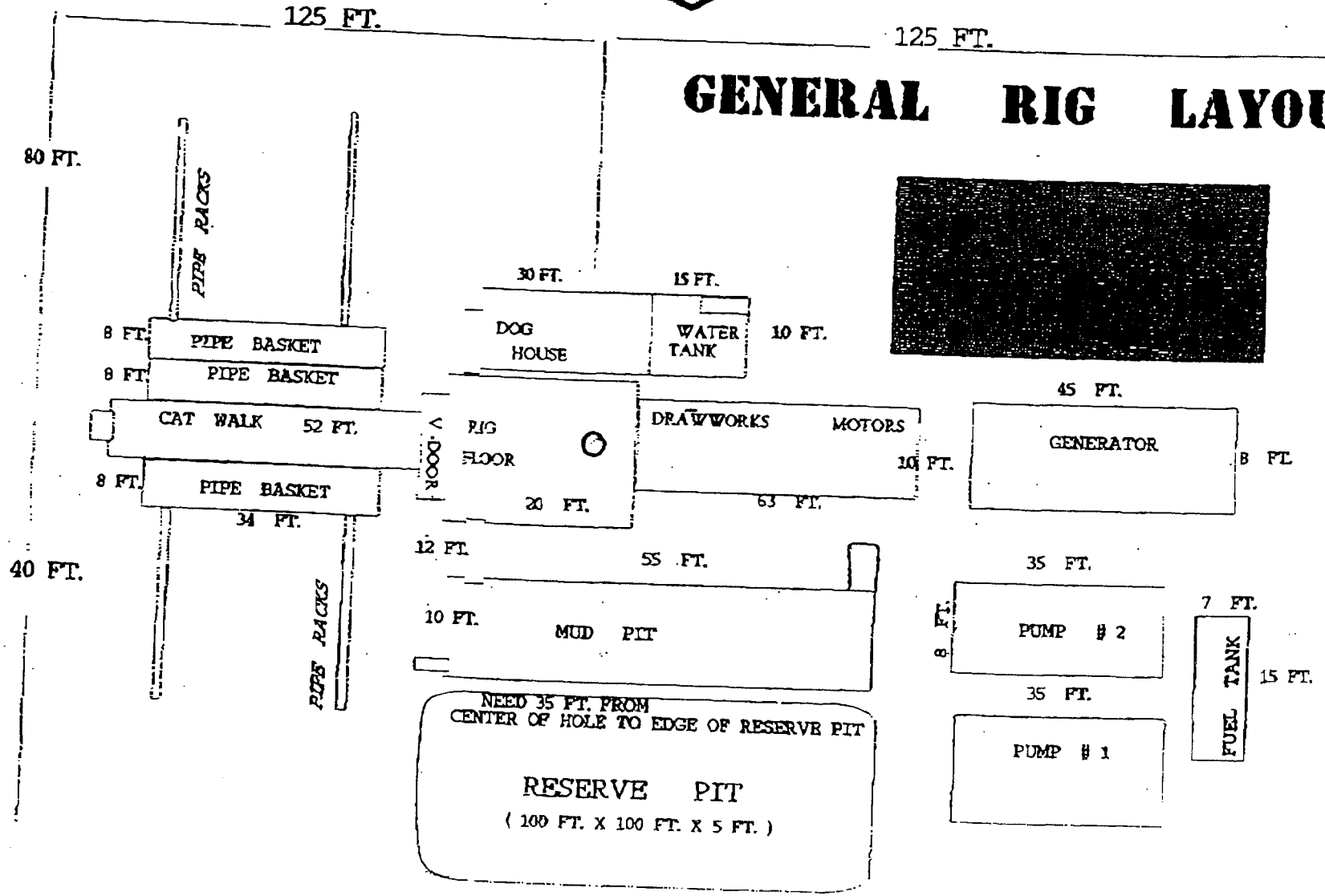
Proposed Access Road

ELEV. UNGRADED GROUND AT LOC. STAKE = 6040.0'
ELEV. GRADED GROUND AT LOC. STAKE = 6038.4'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East Vernal, Utah

AZTEC WELL SERVICING CO.

GENERAL RIG LAYOUT



FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number: Birch 49

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

1. Type of Well: OIL ☐ GAS ☐ OTHER: COALBED METHANE

8. Well Name and Number: Birch A-1

2. Name of Operator: Anadarko Petroleum Corporation

9. API Well Number:

3. Address and Telephone Number: 17001 Northchase Dr., Houston, Texas 77060 281-874-8814

10. Field and Pool, or Wildcat: Helper CBM

4. Location of Well
Footages: 1507 FSL & 856 FWL, SW Sec 5, T14S, R10E
QQ,Sec., T., R., M.:

County: Carbon
State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)

- ☐ Abandon
- ☐ Repair Casing
- ☐ Change of Plans
- ☐ Convert to Injection
- ☐ Fracture Treat or Acidize
- ☐ Multiple Completion
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Recomplete
- ☐ Reperforate
- ☐ Vent or Flare
- ☐ Water Shut-Off
- ☒ Other Location Exception

Approximate date work will start: April, 1997

SUBSEQUENT REPORT (Submit Original Form Only)

- ☐ Abandon*
- ☐ Repair Casing
- ☐ Change of Plans
- ☐ Convert to Injection
- ☐ Fracture Treat or Acidize
- ☐ Other
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Reperforate
- ☐ Vent or Flare
- ☐ Water Shut-Off

Date of work completion:

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

The subject well is proposed as stated above due to more favorable "Topographic & Geologic" considerations. We feel this will increase the chances of drilling and completing a successful well in conjunction of reducing any surface damages.

13. Name & Signature: David H. Hudspeth Title: Staff Drilling Engineer Date: April 08, 1997

(This space for State use only)

(See Instructions on Reverse Side)

STATE ACTIONS

Mail to:
RDCC Coordinator
116 State Capitol
Salt Lake City, Utah 84114

1. ADMINISTERING STATE AGENCY
OIL, GAS AND MINING
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

2. STATE APPLICATION IDENTIFIER NUMBER:
(assigned by State Clearinghouse)

3. APPROXIMATE DATE PROJECT WILL START:
Upon Approval

4. AREAWIDE CLEARING HOUSE(s) RECEIVING STATE ACTIONS:
(to be sent out by agency in block 1)
Five County Association of Governments

5. TYPE OF ACTION: /_/ Lease /X/ Permit /_/ License /_/ Land Acquisition
/_/ Land Sale /_/ Land Exchange /_/ Other _____

6. TITLE OF PROPOSED ACTION:
Application for Permit to Drill

7. DESCRIPTION:
Anadarko Petroleum Corporation proposes to drill the Birch A-1 well(wildcat) on a private lease in Carbon County, Utah. This action is being presented to RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.

8. LAND AFFECTED (site location map required) (indicate county)
NW/4, SW/4, Section 5, Township 14 South, Range 10 East, Carbon County, Utah

9. HAS THE LOCAL GOVERNMENT(s) BEEN CONTACTED?

10. POSSIBLE SIGNIFICANT IMPACTS LIKELY TO OCCUR:
Degree of impact is based on the discovery of oil or gas in commercial quantities.

11. NAME AND PHONE NUMBER OF DISTRICT REPRESENTATIVE FROM YOUR AGENCY NEAR PROJECT SITE, IF APPLICABLE:

12. FOR FURTHER INFORMATION, CONTACT:
R. J. Firth
PHONE: 538-5274

13. SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL:

DATE: 2-19-97

Associate Director

APC 214 (9/90)

RELEASE OF WELL LOCATION
UNCONVENTIONAL RESERVOIRS

Date: January 31, 1997

Well Name: Birch A-1 AFE No.: 15227

Prospect or Field: Helper-Price

County/State: Carbon County, Utah

Located on APC Acreage? Yes APC Lease No.: 43-007-0049-00
(Hilma P. Birch lease)

Lease Expiration Date or HBP/HBU: 7/23/01

Location: 1,507' FSL & 856' FWL, Section 5, T14S-R10E, S.L.B.&M.

Brief Description of Drillsite or Unit Tract: SW/4 of Section 5

*Formations Spaced or Anticipated Spacing: Anticipate 160-acre spacing.

Obligation Commencement Date (if any): ASAP.

Primary Objective or Obligation Depth (if any): Ferron Coal--approximately 2,500' TD.

Depth Restrictions (if any): None.

Operator: Anadarko

APC Interest: WI 100% NRI 85.00%
(ORRI: N/A)

* Surface Owner (Name & Address): Hilma P. Birch et al,
Route 2, Box 144, Helper, UT 84526

* Tenant (Name & Address): Hilma Pollock Birch, Keith P. Birch, Connie Birch Bogenschutz, and Bonnie Alice Birch Cranney, jointly, 1980 North, 1500 West, Carbonville, UT 84501

Surface Disturbance Stipulations, Easements, Etc.:
Production group shall conduct detailed surface inspection prior to building the location and be on the lookout for possible rights-of-way, reservoirs and mining activity among other things. See existing easements and R-O-W's on Exhibit "B".

* Title Information: Drilling Title Opinions dated December 2, 1996 and December 3, 1996, covering Hilma Pollock Birch lease (W/2 SW/4) and Federal Lease 65762 (E/2 SW/4), respectively, prepared by Carleton Ekberg of Poulson, Odell & Peterson, Denver, CO.

Mr. T. Baza

This is our well Release that shows APC has 100% WI of the subject acr of Sections 3-4-5.

D. D. Anderson

Committee Approved: January 14, 1997

D. D. Anderson - Marketing**
Division Admin. Manager - Houston**
Manager - Land Administration**
Supervisor - Joint Int. Acc'ting**
Land Unit File*

Land Supervisor: Michael S. Dollarhide
Michael S. Dollarhide

Date Signed: February 6, 1997

FAX TRANSMITTAL

April 11, 1997

Mr. David Hudspeth
Anadarko Petroleum Corporation

As we discussed during our telephone conversation this morning, I am sending you information concerning the requirements for justifying exceptions to the well siting rules of the Division of Oil, Gas and Mining. I have attached a copy of referenced rule.

Rule no. R-649-3-3 requires that a written application for an exception well location which includes several items. But the most critical requirement is the written consent from owners affected by the exception. Obviously, if ownership is the same for all surrounding acreage, then the exception justification is very simple.

For the three wells currently being processed for drilling permit approval, I am including a copy of this correspondence in the file. From your statements in our telephone conversation, I will accept that Anadarko owns the mineral rights in all of Sections 3, 4 and 5 of Township 14 South, Range 10 East in Carbon County. You should still submit to the Division a written statement to this effect in order to comply with the requirements of the rule.

Thank you for your response to my questions. Please let me know if I can be of any help to you. My telephone number is (801) 538-5334 and my fax number is (801) 359-3940.

John Baza
Petroleum Engineer
Utah Division of Oil, Gas and Mining

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

April 17, 1997

Anadarko Petroleum Corporation
17001 Northchase Drive
Houston, Texas 77060

Re: Birch A-1 Well, 1507' FSL, 856' FWL, NW SW, Sec. 5, T. 14 S., R. 10 E., Carbon County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-007-30348.

Sincerely,

Lowell P. Braxton
Deputy Director

lwp
Enclosures
cc: Carbon County Assessor
Bureau of Land Management, Moab District Office

Operator: Anadarko Petroleum Corporation

Well Name & Number: Birch A-1

API Number: 43-007-30348

Lease: State

Location: NW SW **Sec.** 5 **T.** 14 S. **R.** 10 E.

Conditions of Approval

1. General
   Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements
   Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5336.

   Notify the Division prior to commencing operations to plug and abandon the well. Contact John R. Baza (801)538-5334 or Mike Hebertson at (801) 538-5333.

3. Reporting Requirements
   All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis dated March 5, 1997 (copy attached).

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number: Birch 49

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

1. Type of Well: OIL ☐ GAS ☐ OTHER: COALBED METHANE

8. Well Name and Number: Birch A-1

2. Name of Operator: Anadarko Petroleum Corporation

9. API Well Number:

3. Address and Telephone Number: 17001 Northchase Dr., Houston, Texas 77060 281-874-8814

10. Field and Pool, or Wildcat: Helper CBM

4. Location of Well
Footages: 1507 FSL & 856 FWL, SW Sec 5, T14S, R10E
QQ,Sec., T., R., M.:
County: Carbon
State: Utah

11. **CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandon	☐ New Construction	☐ Abandon*	☐ New Construction
☐ Repair Casing	☐ Pull or Alter Casing	☐ Repair Casing	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recomplete	☐ Change of Plans	☐ Reperforate
☐ Convert to Injection	☐ Reperforate	☐ Convert to Injection	☐ Vent or Flare
☐ Fracture Treat or Acidize	☐ Vent or Flare	☐ Fracture Treat or Acidize	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other	
☒ Other Location Exception			

Approximate date work will start: April, 1997

Date of work completion:

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

The subject well is proposed as stated above due to more favorable "Topographic & Geologic" considerations. We feel this will increase the chances of drilling and completing a successful well in conjunction of reducing any surface damages.

RECEIVED
APR 24 1997
DIV. OF OIL, GAS & MINING

13. Name & Signature: David H. Hudspeth Title: Staff Drilling Engineer Date: April 08, 1997

(This space for State use only)

(See Instructions on Reverse Side)

ANADARKO PETROLEUM CORPORATION 17001 NORTHCHASE DRIVE • P.O. BOX 1330 • HOUSTON, TEXAS 77251-1330
TEL. (713) 875-1101

Anadarko

February 5, 1997

Mr. Mike Hebertson
State of Utah
Division of Oil, Gas and Mining
1594 W. North Temple
Suite 1210
Salt Lake City, Utah 84114-5801

RE:	Birch A-1	Helper State A-1	Helper State D-7
	Sec 5-14S-10E	Sec 3-14S-10E	Sec 4-14S-10E
	Carbon Co., Utah	Carbon Co., Utah	Carbon Co., Utah

Dear Mr. Hebertson:

Pursuant to our conversation, this letter is to clarify that the above listed wells are Fee and State surface. This letter as well as the BOP Schematic are being faxed to you. Since the well is being air drilled, a rotating head will be used.

As requested, the Arch report will be sent to your attention via regular mail.

Should you have any further questions, please do not hesitate to call me at 281-873-1280.

Sincerely,

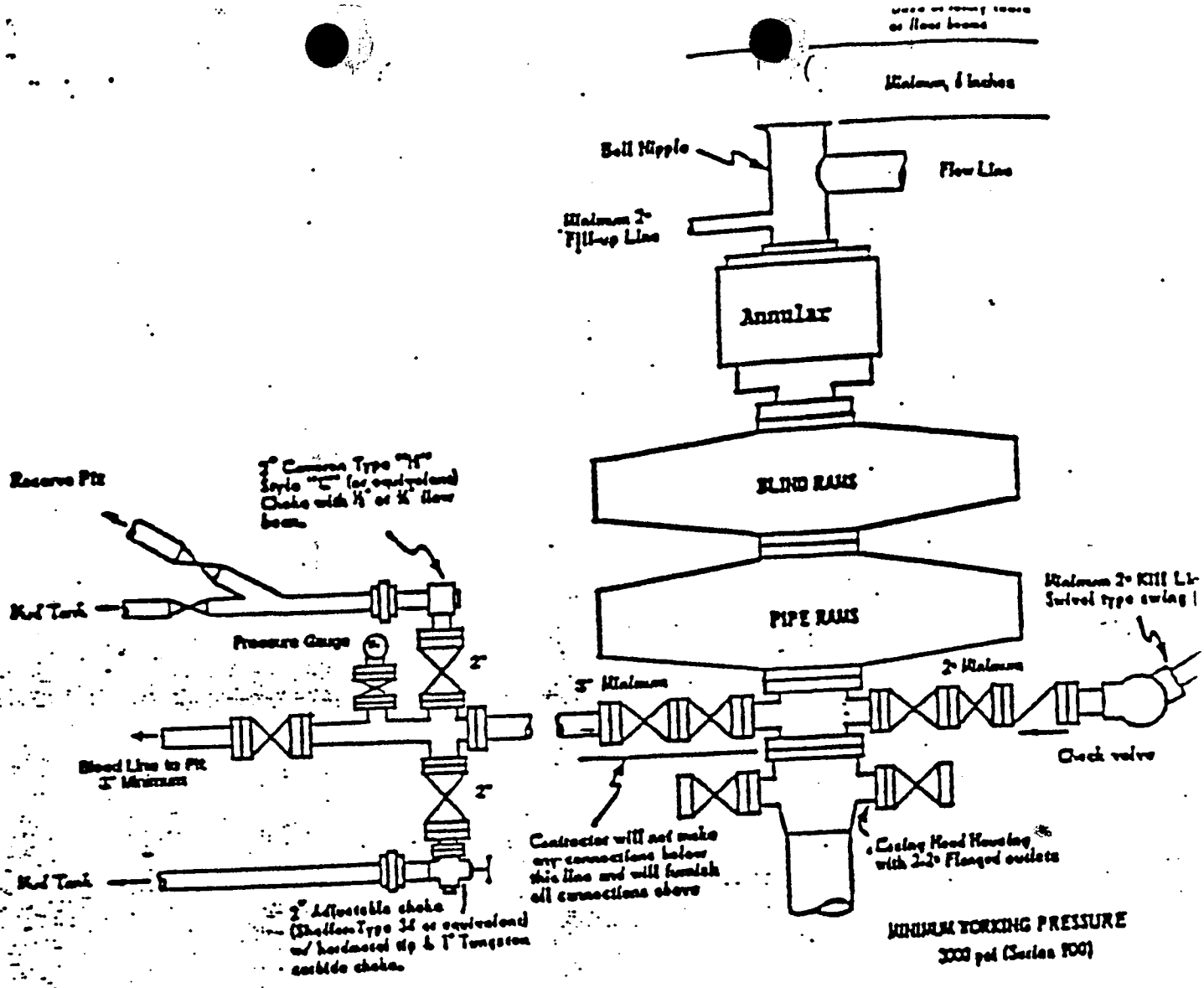
ANADARKO PETROLEUM CORPORATION

Dave Winchester

Dave Winchester
Division Drilling Engineer

DRW/ddg

Enclosures



Anadarko Petroleum Corporation

EXHIBIT A

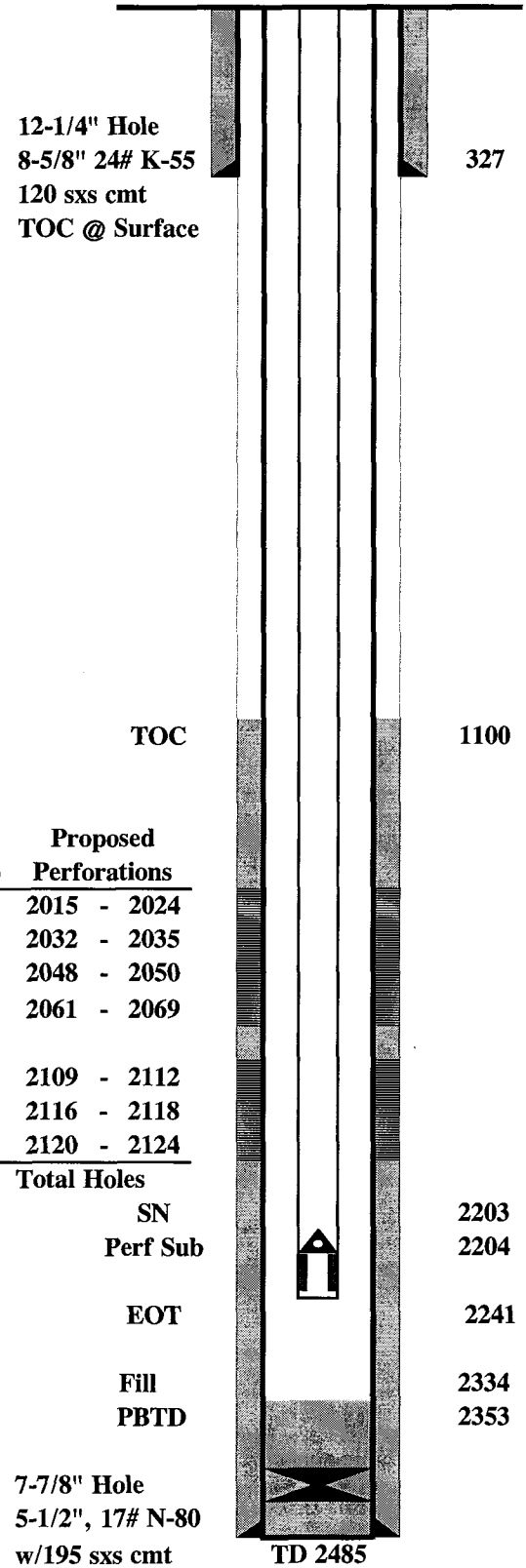
MINIMUM BLOWOUT PREVENTER REQUIREMENTS - NORMAL PRESSURE (SHALLOW) SERVICE

BIRCH A-1

SW 1507' FSL & 856' FWL: SEC 5-T14S-R10E

API NO. 43-007-30348

	SPUD	RIG OFF
SURFACE	05/02/1997	05/04/1997
PRODUCTION		



Proposed (Holes)	Perforations
(14)	2015 - 2024
(6)	2032 - 2035
(4)	2048 - 2050
(16)	2061 - 2069
(12)	2109 - 2112
(8)	2116 - 2118
(16)	2120 - 2124
(76)	Total Holes

SN 2203

Perf Sub 2204

EOT 2241

Fill 2334

PBTD 2353

WELL WORK HISTORY

05/09/1997	Perf lower Ferron w/ 3 3/8" 16 gram charge
05/16/1997	Frac L.Ferron w/ 3000 gal 20# pre pad & 18900 gal 20#
	Delta Frac w/ 46000# 20/40 & 20000# 16/30
	Frac screened out to blender problem
05/17/1997	Perf Upper Ferron Coal w/ 3 3/8 16 gram charge
	Screen out Frac sand slug with no Xlink pump in pad
	Perfs covered with sand no frac
05/18/1997	Perf 2038-48 to allow frac job
	Frac U.Ferron w/ 3000 gal 20# pre pad & 24900 gal 20#
	Delta Frac w/ 95500# 20/40 & 81800# 16/30
	ISDP 2320-1551-1445-1357
06/08/1997	Lowered Tbg 250'

NOTES:

TUBING BREAKDOWN

2-3/8"	70	JTS
TA		
2-3/8"	1	JTS
SN	2204	
2-3/8"	1	JTS
NC	2240	
EOT	2241	

ROD BREAKDOWN

PONIES	
1"	
7/8"	875'
3/4"	1100'
1"	
1.5"	200'
PUMP	2203
2"X1.5"X20' 80 ring 165 SL	

DEVIATION ANGLE	
431	1 3/4
1974	3
855	1 1/2
1228	4

FORMATION	TOP
FERRON SANDSTONE	1970
FERRON COAL	2008
TUNUNK SHALE	2148

LAST REVISED: 07/14/1997

ANADARKO PETROLEUM CORPORATION
WELL HISTORY
ONSHORE - U.S.

FIRST REPORT
BIRCH "A" #1, HELPER PROSPECT, 1507' FSL & 856' FWL, SEC 5-14S-10E, CARBON CO, UT, APC WI 1.000, NRI 0.875, AFE 15227, ETD 2500 (FERRON COALS), AZTEC RIG #184.

05/02 R/U, TEST BOPS, DRILL MOUSE/RAT HOLE, P/U BHA-TIH, DRLG FLOAT SHOE-COLLAR, CC 25,000.

05/03 **SPUD WELL @ 0500 HRS 05/02/97,** DRLG F/ 327'-2140', LAST SURVEY @ 1974 - 3°, AVG ROP 85 FPH, MW-AIR, CC 50,000. RPT #1

05/04 DRLG F/ 2140'-2485', **TD WELL @ 2485 ON 05/03/97**, CIRC HOLE, POOH, RIH W/ 5 ½" CSG TO BTM-CMT SAME, MW-AIR, CC 135,000. RPT #2

05/05 **RIG RELEASED ON 05/04/97.** ***--DROP FROM REPORT--*** RPT #3

05/09 PBTD 2353 (FERRON COAL), MIRU HES, TIH W/ GR/JB, TAG PBTD @ 2353, TOH, TIH W/ GR/CCL/CBL, HELD 1000# WHILE LOGGING FROM 2353-800, TOC @ 1000' TOH, PRESSURE TEST CSG TO 4000 PSI, RELEASE PRESSURE, TIH & PERF LOWER FERRON W/ 3 3/8" HOLLOW STEEL CARRIER W/ 16 GRAM CHARGE, PERF 2109-2112 (3), 2116-2118 (8), 2120-2124 (16), SI, RDMO, CC 135,000.

05/10 PBTD 2353 (FERRON COAL), SI PREP TO FRAC, CC 135,000. ***--DROP FROM REPORT--***

05/15 PBTD 2353 (FERRON COAL), MIRUPU, TIH W/TBG TO PBTD, TOH, CC 137,200.

05/16 PBTD 2353 (FERRON COAL), MIRU FRAC EQUIP, NU TREESAVER & FRAC HD, FRAC 2109-2124 W/3000 GAL 20# GEL PRE-PAD & 18900 GAL 20# DELTA FRAC PLUS 46000# 20/40 SD & 20000# 16/30 SD, FRAC SCREENED OUT IN 5 PPG STAGE DUE TO BLNDR PROB, AIR 50 BPM, ATP 3800, MAX PROP CONC 5.2 PPG, RDMO FRAC EQUIP, ND TREESAVER & FRAC HD, BLD WELL DWN, OPEN TO PIT, TIH W/NOTCHED COL & TBG, CO SD TO 2351, TOH, SI, CC 145,000.

05/17 PBTD 2090 (FERRON COAL), MIRU WL, TIH W/ GR/JB TO 2110, TIH & SET RBP @ 2090, PRESS TST CSG TO 4000-OK, PERF FERRON COAL 2015-24, 2032-35, 2048-50, 2061-69, 40 TOTAL SHOTS, START PMPG FRAC, 1.5 PPG SAND SLUG PMPD IN FIRST 1000 GAL SW, ONE PUMP NOT FLUSHED AFTER SCREEN-OUT ON LWR ZONE, SCREENED-OUT, ND TREESAVER & FRAC HD, OPEN TO PIT, TIH W/ NC & TBG, CO SD TO RBP @ 2090, CC 145,000.

05/18 PBTD 2090 (FERRON COAL), MIRU WL, TIH W/ 3 3/8 PERF GUN, PERF 2038-48 2SPF 90 DEG, NU TREESAVER & FRAC HD, FRAC 2015-2069 W/3000 GAL 20# GEL PRE-PAD + 24900 GAL 20# DELTA FRAC + 95500# 20/40 SD + 81800# 16/30 SD, MAX PROP CONC 6.0 PPG, ISDP 2320-1551-1445-1357, RDMO FRAC EQUIP, ND TREESAVER & FRAC HD, BLD WELL DWN, OPEN TO PIT, FLWD @ .25 - .5 BPM FOR 6 HOURS, SI, CC 225,000.

05/19 PBTD 2090 (FERRON COAL), NR, CC 225,000.

05/20 PBTD 2353 (FERRON COAL), OPN WELL TO PIT, TIH W/ RETRIEVING TOOL & TBG, CIRC TO RBP @ 2090, LATCH ONTO RBP & TOH, TIH W/ NC, SN & TBG, TAG FILL @ 2137, CIRC CLEAN TO 2353, SET EOT @ 2230, IFL SURF, SWBD 98 BLW, TRACE SAND, FFL 400, 1459 BLWTR, CC 228,000.

05/21 PBTD 2349 (FERRON COAL), SITP 100, SICP 75, IFL SURF, SWBD 169 BLW, SSG, TRACE SAND, FFL 500, TAG FILL @ 2349, TOH, TIH W/ BP, 1 JT TBG, 4' PS, SN, & TBG, EOT @ 1991, SN @ 1954, ND BOPE, NU WH, SI, 2098 BLWTR, CC 256,400.

05/22 PBTD 2349 (FERRON COAL), SIT&CP 60, IFL SURF, SWBD 98 BLW, WELL KO FLWG @ 15-20 BPH, SICP 380, OPN WELL TO TANKS, FLWD 60 BLW IN 3 HRS, GSG, 1940 BLWTR, CC 258,700.

05/23 PBTD 2349 (FERRON COAL), SITP 0 SICP 500, BD CSG, TIH W/ PMP, SEAT PMP, RDMO PU, TIE IN WH W/ SEP AND FLW LINE TO PIT, START FLOW, 1940 BLWTR, CC 269,100.

05/24 PBTD 2349 (FERRON COAL), SI, 1940 BLWTR, CC 269,100.

05/25 PBTD 2349 (FERRON COAL), SI, 1940 BLWTR, CC 269,100.

05/26 PBTD 2349 (FERRON COAL), PMPD 24 HOURS, 7 MCF, 186 BW, CP 0, FL 157, 1754 BLWTR, CC 269,100.

05/27 PBTD 2349 (FERRON COAL), PMPD 24 HOURS, 15 MCF, 128 BW, CP 25, FL 252, 1626 BLWTR, CC 269,100.

05/28 PBTD 2349 (FERRON COAL), PMPD 24 HOURS, 20 MCF, 118 BW, CP 25, FL 252, 1508 BLWTR, CC 269,100.

05/29 PBTD 2349 (FERRON COAL), PMPD 24 HOURS, 23 MCF, 109 BW, CP 25, FL 252, 1399 BLWTR, CC 269,100.

05/30 NO REPORT.

05/31 PBTD 2349 (FERRON COAL), PU DWN 24 HRS W/ ENG TROUBLE, FL 220, 1399 BLWTR, CC 269,100.

06/01 PBTD 2349 (FERRON COAL), PMPD 24 HRS, 7 MCF, 157 BLW, FCP 25, FL 252, 1242 BLWTR, CC 269,100.

06/02 PBTD 2349 (FERRON COAL), PMPD 24 HRS, 59 MCF, 136 BLW, FCP 25, FL 252, 1106 BLWTR, CC 269,100.

06/03 PBTD 2349 (FERRON COAL), PMPD 24 HRS, 60 MCF, 129 BLW, FCP 25, FL 252, 977 BLWTR, CC 269,100.

06/04 PBTD 2349 (FERRON COAL), PMPD 24 HRS, 45 MCF, 101 BLW, FCP 25, FL 220, 876 BLWTR, CC 269,100.

06/05 PBTD 2349 (FERRON COAL), PMPD 24 HRS, 69 MCF, 126 BLW, FCP 25, FL 220, 750 BLWTR, CC 269,100.

06/06 PBTD 2349 (FERRON COAL), PMPD 24 HRS, 73 MCF, 123 BW, FCP 25, FL 346, 627 BLWTR, CC 269,100.

06/07 PBTD 2349 (FERRON COAL), PMPD 24 HRS, 79 MCF, 121 BLW, FCP 25, FL 377, 506 BLWTR, CC 269,100.

06/08 PBTD 2334 (FERRON COAL), MIRU PU, TOH W/ RODS & BHP, ND WH, TAG FILL @ 2334, SET EOT @ 2241, NU WH, TIH W/ BHP & RODS, SI, 506 BLWTR, CC 272,200.

06/09 PBTD 2334 (FERRON COAL), RDMO PU, PMPD 16 HRS, 40 MCF, 63 BLW, FCP 25, FL 220, 443 BLWTR, CC 274,000.

06/10 PBTD 2334 (FERRON COAL), PMPD 16 HRS, 80 MCF, 179 BLW, FCP 25, FL 252, 264 BLWTR, CC 274,000.

06/11 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 120 MCF, 166 BLW, FCP 25, FL 441, 98 BLWTR, CC 274,000.

06/12 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 225 MCF, 152 BW, FCP 25, FL 693, CC 274,000.

06/13 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 212 MCF, 172 BW, FCP 25, FL 1071, CC 274,000.

06/14 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 236 MCF, 150 BW, FCP 25, FL 1260, CC 274,000.

06/15 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 260 MCF, 76 BW, FCP 25, FL 1260, CC 274,000.

06/16 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 232 MCF, 107 BW, FCP 10, FL 1280, CC 274,000.

06/17 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 244 MCF, 114 BW, FCP 10, FL 1260, CC 274,000.

06/18 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 236 MCF, 126 BW, FCP 10, FL 1512, CC 274,000.

06/19 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 250 MCF, 126 BW, FCP 10, FL 1543, CC 274,000.

06/20 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 260 MCF, 136 BW, FCP 10, FL 1953, CC 274,000.

06/21 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 260 MCF, 121 BW, FCP 10, FL 1984, CC 274,000.

06/22 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 264 MCF, 131 BW, FCP 10, FL 2016, CC 274,000

06/23 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 260 MCF, 104 BW, FCP 10, FL 2016, CC 274,000

06/24 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 260 MCF, 113 BW, FCP 10, FL 2016, CC 274,000

06/25 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 260 MCF, 101 BW, FCP 10, FL 2016, CC 274,000

06/26 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 260 MCF, 102 BW, FCP 10, FL 2016, CC 274,000.

06/27 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 260 MCF, 100 BW, FCP 10, FL 1984, CC 274,000.

06/28 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 260 MCF, 95 BW, FCP 10, FL 1984, CC 274,000.

06/29 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 264 MCF, 106 BW, FCP 10, FL 2016, CC 274,000.

06/30 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 264 MCF, 107 BW, FCP 10, FL 2016, CC 274,000.

07/01 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 266 MCF, 94 BW, FCP 10, FL 1984, CC 274,000.

07/02 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 270 MCF, 91 BW, FCP 10, FL 2016, CC 274,000.

07/03 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 267 MCF, 88 BW, FCP 10, FL 2016, CC 274,000.

07/04 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 269 MCF, 90 BW, FCP 10, FL 2016, CC 274,000.

07/05 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 269 MCF, 53 BW, FCP 10, FL 2016, CC 274,000.

07/06 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 273 MCF, 124 BW, FCP 10, FL 2016, CC 274,000.

07/07 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 276 MCF, 88 BW, FCP 10, FL 2173, CC 274,000.

07/08 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 279 MCF, 98 BW, FCP 10, FL 1984, CC 274,000.

07/09 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 279 MCF, 84 BW, FCP 10, FL 1984, CC 274,000.

07/10 PBTD 2334 (FERRON COAL), PMPD 24 HRS, 279 MCF, 84 BW, FCP 10, FL 2016, CC 274,000.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: ANADARKO PETROLEUM

Well Name: BIRCH #A1

Api No. 43-007-30348

Section: 5 Township: 14S Range: 10E County: CARBON

Drilling Contractor AZTEC

Rig # 184

SPUDDED:

Date 5/3/97

Time

How ROTARY

Drilling will commence

Reported by JEFF DUNCAN

Telephone # 1-801-790-4618

Date: 4/28/97 Signed: MKH

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM - FORM 6

OPERATOR Anadarko Petroleum Corporation

ADDRESS 17001 Northchase Drive
Houston, Texas 77060

OPERATOR ACCT. NO. N 0035

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION QQ	SC	TP	RG	COUNTY	SPUD DATE	EFFECTIVE DATE
A	99999	12120	43-007-30348	Birch A-1	SW	5	14S	10E	Carbon	05/02/97	05/02/97
WELL 1 COMMENTS: New Single Well Entity added 5-13-97. Lc											
WELL 2 COMMENTS:											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

ACTION CODES (See instructions on back of form)
- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

RECEIVED
MAY 13 1997
DIV. OF OIL, GAS & MINING

Signature

Staff Drilling Eng. 9.May.97
Title Date

Phone No. (281) 874-8814

FORM 9

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number: Birch 49

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL ☐ GAS ☐ OTHER: Coalbed Methane

8. Well Name and Number: Birch A1

2. Name of Operator: Anadarko Petroleum Corporation

9. API Well Number: 43-007-30348

3. Address and Telephone Number: 17001 Northchase Dr. Houston, TX 77060 (281) 875-1101

10. Field and Pool, or Wildcat: Wildcat

4. Location of Well

Footages: 1507' FSL & 856' FWL

County: Carbon

QQ, Sec., T., R., M.: Carbon County, Sec. 5-T14S-R10E, S.L.B. & M

State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☒ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other	
☐ Other			

Approximate date work will start: May 25, 1997

Date of work completion:

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Anadarko Petroleum Corporation respectfully requests that a 90-day production test period be granted in order to fully evaluate the production characteristics and capability of the Ferron Coal underlying the southern acreage of our Helper Field. During the production test, produced gas would be vented to the atmosphere, as no pipeline connection is available. Produced water would be transported to Anadarko's Castlegate reverse osmosis facility for treatment and disposal, in full compliance with UPDES Permit UT0025267 as issued by the Utah Department of Environmental Quality (Division of Water Quality). Compatibility testing of the produced waters will be conducted prior to disposal, and those results will be submitted via Sundry Notice at a later date.

13.

Name & Signature: Craig R. Walters Craig R. Walters Title: Production Engineer Date: 5/6/97

(This space for State use only)

See attached Conditions of Approval.

RECEIVED MAY 09 1997

DIV. OF OIL, GAS & MINING

UTAH DIVISION OF OIL, GAS AND MINING
CONDITIONS OF APPROVAL

Well Name and Number:	Birch A-1
API Number:	43-007-30348
Operator:	Anadarko Petroleum Corporation
Type of Approval Requested:	Extension of time period for conducting production test and venting produced gas
Reference Document:	Sundry notice dated 5/6/97

Approval Conditions:

1. As requested by the referenced sundry notice, approval is granted to extend the period of time allowed for conducting the stabilized production test required by Rule R649-3-19 of the Oil and Gas Conservation General Rules for up to 90 days.

2. As allowed by Rule R649-3-20, during the period of time allowed for conducting the stabilized production test, the operator may vent or flare all produced gas well gas as needed for conducting the test.

3. The operator will perform the production test, vent or flare produced gas, and dispose of produced water as specified on the referenced sundry notice. All other operating and reporting requirements will be performed in accordance with the Oil and Gas Conservation General Rules.

John R. Baza, Petroleum Engineer

5/14/97
Date

FORM 9

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number: Birch 49

SUNDRY NOTICES AND REPORTS ON WELLS

6. If Indian, Allottee or Tribe Name:

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

7. Unit Agreement Name:

1. Type of Well: OIL ☐ GAS ☐ OTHER: COALBED METHANE

8. Well Name and Number: Birch A-1

2. Name of Operator: Anadarko Petroleum Corporation

9. API Well Number: 43-007-30348

3. Address and Telephone Number: 17001 Northchase Drive, Houston, TX 77060 281-874-8814

10. Field and Pool, or Wildcat: Helper CBM

4. Location of Well

Footages: 1507 FSL & 856 FWL, SW Sec 5, T14S, R10E

County: Carbon

QQ, Sec., T., R., M.:

State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other	
☒ Other Spud Notification			

Approximate date work will start: SPUD 05/02/97, 0500 Hrs.

Date of work completion:

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

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MAY 13 1997
DIV. OF OIL, GAS & MINING

13.

Name & Signature: Dave Hudspeth Title: Staff Drilling Eng. Date: 09.May.97

(This space for State use only)

(1\93)

(See Instructions on Reverse Side)

ANADARKO PETROLEUM CORPORATION
WELL HISTORY
ONSHORE - U.S.

FIRST REPORT
BIRCH "A" #1, BIRCH PROSPECT, 1507' FSL & 856' FWL, SEC 5-14S-10E, CARBON CO, UT, APC WI 1.000, NRI 0.875, AFE 15227, ETD 2500 (FERRON COALS), AZTEC RIG #184.

05/02 R/U, TEST BOPS, DRILL MOUSE/RAT HOLE, P/U BHA-TIH, DRLG FLOAT SHOE-COLLAR, CC 25,000.

05/03 **SPUD WELL @ 0500 HRS 05/02/97,** DRLG F/ 327'-2140', LAST SURVEY @ 1974 - 3°, AVG ROP 85 FPH, MW-AIR, CC 50,000. RPT #1

05/04 DRLG F/ 2140'-2485', **TD WELL @ 2485 ON 05/03/97**, CIRC HOLE, POOH, RIH W/ 5 ½" CSG TO BTM-CMT SAME, MW-AIR, CC 135,000. RPT #2

05/05 **RIG RELEASED ON 05/04/97.** ***--DROP FROM REPORT--*** RPT #3

ANADARKO PETROLEUM CORPORATION 17001 NORTHCHASE DRIVE • P.O. BOX 1330 • HOUSTON, TEXAS 77251-1330
TEL. (281) 875-1101

Anadarko

July 14, 1997

CONFIDENTIAL

Utah Division of Oil, Gas, and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84414-5801

RE: Birch State A-1
Sec. 5, T14S, R10E
Carbon County, Utah

Gentlemen:

Please find enclosed, in triplicate, the Well Completion Report (Form 8) for the above referenced well. Also enclosed are copies of the wellbore diagrams, drilling reports, and open hole logs.

Please hold the logs confidential for a period of two years. Should need any additional information, please contact the undersigned at (281) 873-3899.

Best Regards,

ANADARKO PETROLEUM CORPORATION

April A. Leger

April A. Leger
Sr. Engineering Technician

CC: Bureau of Land Management
Moab District Office
P.O. Box 970
Moab, Utah 84532

Bureau of Land Management
Price River Resources Area
900 North, 700 East
Price, Utah 84501

AAL
TRC
SMF Reading File

FORM 8

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NO.: Birch 49

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Birch "A"

2. NAME OF OPERATOR: Anadarko Petroleum Corporation

9. WELL NO.: 1

3. ADDRESS OF OPERATOR: 17001 Northchase Dr., Houston, Texas 77060

4. LOCATION OF WELL *(Report location clearly and in accordance with any State requirements)*
At surface: 1507' FSL & 856' FWL (SW) Sec. 5, T14S, R10E
At top prod. interval reported below: Same
At total depth: Same

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RECEIVED
JUL 15 1997
DIV. OF OIL, GAS & MINING

10. FIELD AND POOL, OR WILDCAT: Helper CBM

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 5-14S-10E

14. API NO.	DATE ISSUED	12. COUNTY	13. STATE
43-007-30348	4/17/97	Carbon	Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod. / Plug & Abd.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)	19. ELEV. CASINGHEAD
05/02/97	05/03/97	05/23/97	5716 G.L.	5728 K.B.

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
2485' MD	2353' MD	No	→	0-2485'	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD): Ferron Coal (2015-2124) MD

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: Spectral Density Epithermal Neutron/High Resolution Induction 7-1597

27. Was Well Cored YES ☐ NO ☒ *(Submit analysis)*
Drill System Test YES ☐ NO ☒ *(See reverse side)*

28. CASING RECORD *(Report all strings set in well)*

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8" K-55	24#	327	12 1/4"	120 sxs cmt Class H	None
5 1/2" N-80	17#	2485	7 7/8"	195 sxs cmt Class H	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	2241'	N/A

31. PERFORATION RECORD *(Interval, size and number)*
2015 - 2024
2032 - 2035
2048 - 2050
2061 - 2069
2109 - 2112
2116 - 2118
2120 - 2124
4 SPF w/o.6" EHD

CONFIDENTIAL

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
2109 - 2124	Frac w/22,000 gal. 20# Delta Frac 66,000# SD
2015 - 2069	Frac w/28,000 gal. 20# Delta Frac 177,000 # SD

33. 2 SPF w/0.6" EHD

PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD *(Flowing, gas lift, pumping - size and type of pump)*	WELL STATUS *(Producing or shut-in)*
05/24/97	Pumping	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL - BBL.	GAS - MCF.	WATER - BBL.	GAS - OIL RATIO
05/26/97	24	Open		0	15	128	N/A

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
N/A	25		0	15	128	N/A

34. DISPOSITION OF GAS *(Sold, used for fuel, vented, etc.)*: Vented

TEST WITNESSED BY: Jeff Duncan

35. LIST OF ATTACHMENTS: Wellbore diagram, drilling report, logs

CONFIDENTIAL PERIOD EXPIRED ON 6-23-98

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Shad Frazier TITLE Production Engineer DATE 07/14/97

See Spaces for Additional Data on Reverse Side

INSTRUCTIONS

This form should be completed in compliance with the Utah Oil and Gas Conservation General Rules. If not filed prior to this time, all logs, tests, and directional surveys as required by Utah Rules should be attached and submitted with this report.

ITEM 18: Indicate which elevation is used as reference for depth measurements given in other spaces on this form and on any attachment.
ITEMS 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in iten 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
ITEM 29: "Sacks Cement": Attached supplemental records for this well should show the details for any multiple stage cementing and the location of the cementing tool.
ITEM 33: Submit a separate completion report on this form for each interval to be separately produced (see instruction for items 22 and 24 above).

37. SUMMARY OF POROUS ZONES:
Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries).

Formation	Top	Bottom	Description, contents, etc.
Ferron Sandstone	1970	2008	
Ferron Coal	2008	2148	
Tununk Shale	2148	2485	

38. GEOLOGIC MARKERS

Name	Top	
	Meas. Depth	True Vert.Depth
Ferron Sand	1970	
Ferron Coal	2008	
Tununk Shale	2148	

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED
AUG 14 1997
DIV. OF OIL, GAS & MINING

5. Lease Designation and Serial Number: Birch 49

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL ☐ GAS ☐ OTHER: Coalbed Methane

8. Well Name and Number: Birch A1

2. Name of Operator: Anadarko Petroleum Corporation

9. API Well Number: 43-007-30348

3. Address and Telephone Number: 17001 Northchase Dr., Houston,TX 77060 (281) 875-1101

10. Field and Pool, or Wildcat: Wildcat

4. Location of Well
Footages: 1507' FSL & 856' FWL
QQ, Sec.,T.,R.,M.: Carbon County, Sec. 5-T14S-R10E, S.L.B. & M
County: Carbon
State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☒ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other	
☐ Other			

Approximate date work will start: August 25, 1997

Date of work completion:

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

CONFIDENTIAL

Anadarko Petroleum Corporation respectfully requests another 90 day testing period for the above mentioned well. We are making sincere attempts to connect this well to a gathering system. Currently, APC is in the process of Buying and installing the pipelines used to transport the produced fluids. We will have the well connected and flowing to sales by the end of October. Thank you for working with us on this matter.

13.
Name & Signature: Shad Frazier Shad M. Frazier Title: Engineer Date: 8/11/97

(This space for State use only)

See attached Conditions of Approval

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 8/14/97
BY: John K. Bayne

(See Instructions on Reverse Side)

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

CONDITIONS OF APPROVAL

Well Name and Number:	Birch A-1
API Number:	43-007-30348
Operator:	Anadarko Petroleum Corporation
Type of Approval Requested:	Extension of time period for conducting production test and venting produced gas
Reference Document:	Sundry notice dated 8/11/97

Approval Conditions:

1. As requested by the referenced sundry notice, approval is granted to extend the time allowed for conducting the stabilized production required by Rule R649-3-19 of the Oil and Gas Conservation General Rules for an additional 90 days. This approval expires on November 25, 1997.

2. As allowed by Rule R649-3-20, during the period of time allowed for conducting the stabilized production test, the operator may vent or flare all produced gas well gas as needed for conducting the test.

3. The operator will perform the test, vent or flare produced gas, and dispose of produced water as specified on the originally submitted sundry notice date May 6, 1997. All other operating and reporting requirements will be performed in accordance with the Oil and Gas Conservation General Rules.

John R. Baza

John R. Baza, Petroleum Engineer

8/14/97

Date

05/22/98 D E T A I L W E L L D A T A menu: opt 00

api num:	4300730348	prod zone: FRSD	sec	twnshp	range	qr-qr
entity:	12120 : BIRCH A-1		5	14.0 S	10.0 E	NWSW

well name: BIRCH A-1
operator: N0035 : ANADARKO PETROLEUM CORP meridian: S
field: 18 : HELPER
confidential flag: C confidential expires: 980623 alt addr flag:
* * * application to drill, deepen, or plug back * * *

lease number:	FEE	lease type:	4	well type:	OT
surface loc:	1507 FSL 0856 FWL	unit name:			
prod zone loc:	1507 FSL 0856 FWL	depth:	2500	proposed zone:	FRSD
elevation:	5716' GR	apd date:	970417	auth code:	R649-3-3
* * completion information * *		date recd:	970715	la/pa date:	
spud date:	970503	compl date:	970523	total depth:	2485'

producing intervals: 2015-2124'

bottom hole:	1507 FSL 0856 FWL	first prod:	970524	well status:	PGW
24hr oil:	24hr gas: 15	24hr water:	128	gas/oil ratio:	
* * well comments:		directionl:		api gravity:	

970513 ENTITY ADDED:980501 FLD CHGD FR 002:

opt: 21 api: 4300730348 zone: date(yymm): enty acct: N3800

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

IN REPLY REFER TO
UT-931

May 19, 1998

Anadarko Petroleum Corporation
Attn: Ernie Leuenberger
P.O. Box 1330
Houston, Texas 77251-1330

Gentlemen:

Enclosed is one approved copy of Communitization Agreement No. UTU75545. This agreement communitizes all rights as to natural gas and associated liquid hydrocarbons producible from the Ferron Formation, covering the SW¼ of Section 5, Township 14 South, Range 10 East, SLB&M, Carbon County, Utah. This agreement conforms with the spacing set forth in Order No. 241-1 which was issued by the State of Utah, Board of Oil, Gas and Mining.

This agreement is effective as of May 2, 1997. The communitized area covers 160.00 acres and includes portions of Federal oil and gas lease UTU65762.

Approval of this agreement does not warrant or certify that the operator thereof and other holders of operating rights hold legal or equitable title to those rights in the subject leases which are committed hereto.

Minerals Management Service Form MMS-3160, "Monthly Report of Operations", must be submitted for this agreement beginning with the month in which the agreement was effective for Well No. Birch A-1, NW¼ SW¼ of Section 5, Township 14 South, Range 10 East, SLB&M, Carbon County, Utah, API # 43-007-30348, on a Fee Lease. Form MMS-3160 is to be mailed to the Minerals Management Service, Production Accounting Division, P. O. Box 17110, Denver, Colorado 80217.

As this well is producing, this approval requires the submission of a Payor Information Form MMS-4025 to the Minerals Management Service (MMS) within 30 days (30 CFR 210.51). Please notify the designated payor or payors (purchasers, working interest owners, or others) as soon as possible regarding this requirement. Any production royalties that are due must be reported and paid within 90 days of the Bureau of Land Management's approval date or the payors will be assessed interest for late payment under the Federal Oil and Gas Royalty Management Act of 1982 (See 30 CFR 218.54). If you need assistance or clarification, please contact the Minerals Management Service at 1-800-525-9167 or 303-231-3504.

Please furnish all interested principals with necessary evidence of this approval.

Sincerely,

/s/ Robert A. Henricks

Robert A. Henricks
Chief, Branch of Fluid Minerals

Enclosure

bcc: Mineral Adjudication Group w/enclosure
District Manager - Moab w/enclosure
Division Oil, Gas & Mining
File - UTU75545
MMS - Data Management Division
Agr. Sec. Chron.
Fluid Chron.

UT931:TATHOMPSON:tt

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET (for state use only)

ROUTING
CDW

X - Change of Operator (Well Sold) Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective: **4/1/2013**

FROM: (Old Operator):	**TO:** (New Operator):
N0035-Anadarko Petroleum Corporation	N3940- Anadarko E&P Onshore LLC
PO Box 173779	PO Box 173779
Denver, CO, 80214	Denver, CO 802014
Phone: 1 (720) 929-6000	Phone: 1 (720) 929-6000

CA No. **Unit:**

WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
See Attached List								

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 4/9/2013
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 4/9/2013
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 4/10/2013
4a. Is the new operator registered in the State of Utah: _____ Business Number: 593715-0161
5a. (R649-9-2)Waste Management Plan has been received on: Yes
5b. Inspections of LA PA state/fee well sites complete on: 4/10/2013
5c. Reports current for Production/Disposition & Sundries on: 4/10/2013
6. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 4/2/2013 BIA N/A
7. **Federal and Indian Units:**
   The BLM or BIA has approved the successor of unit operator for wells listed on: N/A
8. **Federal and Indian Communization Agreements ("CA"):**
   The BLM or BIA has approved the operator for all wells listed within a CA on: N/A
9. **Underground Injection Control ("UIC")** Division has approved UIC Form 5 Transfer of Authority to **Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 4/10/2013

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 4/11/2013
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 4/11/2013
3. Bond information entered in RBDMS on: 4/10/2013
4. Fee/State wells attached to bond in RBDMS on: 4/11/2013
5. Injection Projects to new operator in RBDMS on: 4/11/2013
6. Receipt of Acceptance of Drilling Procedures for APD/New on: N/A

BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: WYB000291
2. Indian well(s) covered by Bond Number: N/A
3a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 22013542
3b. The **FORMER** operator has requested a release of liability from their bond on: N/A

LEASE INTEREST OWNER NOTIFICATION:

4. (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 4/11/2013

COMMENTS:

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: See Wells

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER CBM Wells

8. WELL NAME and NUMBER:

2. NAME OF OPERATOR: Anadarko Petroleum Corporation

9. API NUMBER: See Wells

3. ADDRESS OF OPERATOR: P.O. Box 173779 CITY Denver STATE CO ZIP 80217

PHONE NUMBER: (720) 929-6000

10. FIELD AND POOL, OR WILDCAT:

4. LOCATION OF WELL

FOOTAGES AT SURFACE:

COUNTY:

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: 4/8/2013	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator is requesting authorization to transfer the wells from Anadarko Petroleum Corporation and Anadarko Production Company to Anadarko E&P Onshore, LLC. Please see the attached list of 181 wells that are currently filed under Anadarko Petroleum Corporation and Anadarko Production Company. The state/fee wells will be under bond number 22013542, and the federal wells will be under bond number WYB000291.

RECEIVED

Effective 4/1/13

APR 09 2013

Please contact the undersigned if there are any questions.

DIV. OF OIL, GAS & MINING

Jaime Scharnowske
Regulatory Analyst

Anadarko Petroleum Corporation N0035
P.O. Box 173779
Denver, CO 80214
(720) 929-6000

Jaime Scharnowske
Regulatory Analyst

Anadarko E&P Onshore, LLC N3940
P.O. Box 173779
Denver, CO 80214
(720) 929-6000

NAME (PLEASE PRINT) Jaime Scharnowske TITLE Regulatory Analyst

SIGNATURE Jaime Scharnowske DATE 4/8/2013

(This space for State use only)

APPROVED

APR 11 2013

DIV. OIL GAS & MINING

Rachel Medina

(5/2000) (See Instructions on Reverse Side)

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)
Effective 1 April-2013

Well Name	Sec	Twnshp	Range	API	Entity No.	Lease Type	Well Type	Well status
HELPER ST SWD 1	03	140S	100E	4300730361	12258	State	WD	A
FED F-2 SWD	08	140S	100E	4300730555	12557	Federal	WD	A
CLAWSON SPRING ST SWD 4	13	160S	080E	4301530477	12979	State	WD	A
CLAWSON SPRING ST SWD 1	36	150S	080E	4300730721	12832	State	WD	I
HELPER FED B-1	33	130S	100E	4300730189	11537	Federal	GW	P
HELPER FED A-1	23	130S	100E	4300730190	11517	Federal	GW	P
HELPER FED A-3	22	130S	100E	4300730213	11700	Federal	GW	P
HELPER FED C-1	22	130S	100E	4300730214	11702	Federal	GW	P
HELPER FED B-5	27	130S	100E	4300730215	11701	Federal	GW	P
HELPER FED A-2	22	130S	100E	4300730216	11699	Federal	GW	P
HELPER FED D-1	26	130S	100E	4300730286	12061	Federal	GW	P
BIRCH A-1	05	140S	100E	4300730348	12120	Fee	GW	P
HELPER ST A-1	03	140S	100E	4300730349	12122	State	GW	P
HELPER ST D-7	04	140S	100E	4300730350	12121	State	GW	P
CHUBBUCK A-1	31	130S	100E	4300730352	12397	Fee	GW	P
VEA A-1	32	130S	100E	4300730353	12381	Fee	GW	P
VEA A-2	32	130S	100E	4300730354	12483	Fee	GW	P
VEA A-3	32	130S	100E	4300730355	12398	Fee	GW	P
VEA A-4	32	130S	100E	4300730356	12482	Fee	GW	P
HELPER ST A-8	02	140S	100E	4300730357	12257	State	GW	P
HELPER ST A-3	02	140S	100E	4300730358	12254	State	GW	P
HELPER ST A-4	02	140S	100E	4300730359	12255	State	GW	P
HELPER ST A-7	02	140S	100E	4300730360	12256	State	GW	P
HELPER ST A-2	03	140S	100E	4300730362	12232	State	GW	P
HELPER ST A-5	03	140S	100E	4300730363	12231	State	GW	P
HELPER ST A-6	03	140S	100E	4300730364	12233	State	GW	P
HELPER ST D-4	04	140S	100E	4300730365	12228	State	GW	P
HELPER ST D-3	05	140S	100E	4300730366	12184	State	GW	P
HELPER ST D-5	04	140S	100E	4300730367	12226	State	GW	P
HELPER ST D-8	04	140S	100E	4300730368	12229	State	GW	P
HELPER ST D-2	05	140S	100E	4300730369	12481	State	GW	P
HELPER ST D-6	05	140S	100E	4300730370	12234	State	GW	P
HELPER ST D-1	06	140S	100E	4300730371	12399	State	GW	P
BIRCH A-2	08	140S	100E	4300730372	12189	Fee	GW	P
HELPER ST A-9	10	140S	100E	4300730373	12230	State	GW	P
HELPER ST B-1	09	140S	100E	4300730376	12227	State	GW	P
HELPER FED F-3	08	140S	100E	4300730378	12252	Federal	GW	P
HELPER FED F-4	09	140S	100E	4300730379	12253	Federal	GW	P
HELPER ST A-10	10	140S	100E	4300730433	12488	State	GW	P
HELPER ST A-11	11	140S	100E	4300730434	12487	State	GW	P
HELPER ST A-12	10	140S	100E	4300730435	12486	State	GW	P
HELPER ST A-13	10	140S	100E	4300730436	12485	State	GW	P
HELPER ST B-2	09	140S	100E	4300730437	12484	State	GW	P
HELPER FED E-7	19	130S	100E	4300730508	13623	Federal	GW	P
HELPER FED B-2	33	130S	100E	4300730530	12619	Federal	GW	P
HELPER FED B-3	33	130S	100E	4300730531	12622	Federal	GW	P
HELPER FED B-4	33	130S	100E	4300730532	12623	Federal	GW	P
HELPER FED B-6	27	130S	100E	4300730533	12644	Federal	GW	P
HELPER FED B-7	27	130S	100E	4300730534	12645	Federal	GW	P
HELPER FED B-8	27	130S	100E	4300730535	12631	Federal	GW	P

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)
Effective1-April-2013

Well Name	Sec	Twnshp	Range	API	Entity No.	Lease Type	Well Type	Well status
HELPER FED B-9	34	130S	100E	4300730536	12646	Federal	GW	P
HELPER FED B-10	34	130S	100E	4300730537	12626	Federal	GW	P
HELPER FED B-11	34	130S	100E	4300730538	12628	Federal	GW	P
HELPER FED B-12	34	130S	100E	4300730539	12627	Federal	GW	P
HELPER FED B-13	28	130S	100E	4300730540	12621	Federal	GW	P
HELPER FED B-14	28	130S	100E	4300730541	12620	Federal	GW	P
HELPER FED D-2	26	130S	100E	4300730542	12650	Federal	GW	P
HELPER FED D-3	26	130S	100E	4300730543	12634	Federal	GW	P
HELPER FED D-4	35	130S	100E	4300730544	12625	Federal	GW	P
HELPER FED D-5	35	130S	100E	4300730545	12637	Federal	GW	P
HELPER FED D-6	35	130S	100E	4300730546	12635	Federal	GW	P
HELPER FED E-1	29	130S	100E	4300730547	13246	Federal	GW	P
HELPER FED E-2	29	130S	100E	4300730548	12636	Federal	GW	P
HELPER FED H-1	01	140S	100E	4300730549	12653	Federal	GW	P
HELPER FED H-2	01	140S	100E	4300730550	12647	Federal	GW	P
OLIVETO FED A-2	08	140S	100E	4300730556	12630	Federal	GW	P
HELPER FED F-1	08	140S	100E	4300730557	12629	Federal	GW	P
SMITH FED A-1	09	140S	100E	4300730558	13004	Federal	GW	P
SE INVESTMENTS A-1	06	140S	100E	4300730570	12624	Fee	GW	P
HELPER ST A-14	11	140S	100E	4300730571	12612	State	GW	P
HELPER ST A-15	11	140S	100E	4300730572	12613	State	GW	P
HELPER ST E-1	36	130S	100E	4300730573	12615	State	GW	P
HELPER ST E-2	36	130S	100E	4300730574	12614	State	GW	P
HARMOND A-1	07	140S	100E	4300730586	12616	Fee	GW	P
HELPER ST E-3	36	130S	100E	4300730592	12868	State	GW	P
HELPER FED A-6	23	130S	100E	4300730593	12649	Federal	GW	P
HELPER FED D-7	26	130S	100E	4300730594	12651	Federal	GW	P
HELPER FED D-8	35	130S	100E	4300730595	12652	Federal	GW	P
CLAWSON SPRING ST A-1	36	150S	080E	4300730597	12618	State	GW	P
HELPER ST E-4	36	130S	100E	4300730598	12825	State	GW	P
HELPER ST A-16	11	140S	100E	4300730603	12638	State	GW	P
CHUBBUCK A-2	06	140S	100E	4300730604	12648	Fee	GW	P
CLAWSON SPRING ST A-2	36	150S	080E	4300730635	12856	State	GW	P
CLAWSON SPRING ST A-3	36	150S	080E	4300730636	13001	State	GW	P
CLAWSON SPRING ST A-4	36	150S	080E	4300730637	12844	State	GW	P
CLAWSON SPRING ST D-5	31	150S	090E	4300730642	12852	State	GW	P
CLAWSON SPRING ST D-6	31	150S	090E	4300730643	12847	State	GW	P
CLAWSON SPRING ST D-7	31	150S	090E	4300730644	12849	State	GW	P
HELPER FED A-5	23	130S	100E	4300730677	13010	Federal	GW	P
HELPER FED A-7	22	130S	100E	4300730678	13346	Federal	GW	P
HELPER FED B-15	28	130S	100E	4300730679	13015	Federal	GW	P
HELPER FED B-16	28	130S	100E	4300730680	13203	Federal	GW	P
HELPER FED C-2	24	130S	100E	4300730681	13016	Federal	GW	P
HELPER FED C-4	24	130S	100E	4300730682	13012	Federal	GW	P
HELPER FED C-7	21	130S	100E	4300730684	13204	Federal	GW	P
HELPER FED D-9	25	130S	100E	4300730685	13245	Federal	GW	P
HELPER FED D-10	25	130S	100E	4300730686	12993	Federal	GW	P
HELPER FED D-11	25	130S	100E	4300730687	12992	Federal	GW	P
HELPER FED D-12	25	130S	100E	4300730688	13005	Federal	GW	P
HELPER FED E-4	29	130S	100E	4300730689	13229	Federal	GW	P

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)
Effective1-April-2013

Well Name	Sec	Twnshp	Range	API	Entity No.	Lease Type	Well Type	Well status
HELPER FED A-4	23	130S	100E	4300730692	13009	Federal	GW	P
HELPER FED C-5	24	130S	100E	4300730693	13013	Federal	GW	P
HELPER FED G-1	30	130S	110E	4300730694	13006	Federal	GW	P
HELPER FED G-2	30	130S	110E	4300730695	13007	Federal	GW	P
HELPER FED G-3	31	130S	110E	4300730696	13002	Federal	GW	P
HELPER FED G-4	31	130S	110E	4300730697	13003	Federal	GW	P
HELPER FED H-3	01	140S	100E	4300730698	12831	Federal	GW	P
HELPER FED H-4	01	140S	100E	4300730699	12833	Federal	GW	P
CLAWSON SPRING ST D-8	31	150S	090E	4300730701	12851	State	GW	P
HELPER FED C-3	24	130S	100E	4300730702	13011	Federal	GW	P
CLAWSON SPRING ST J-1	35	150S	080E	4300730726	13299	Fee	GW	P
PIERUCCI 1	35	150S	080E	4300730727	13325	Fee	GW	P
POTTER ETAL 1	35	150S	080E	4300730728	12958	Fee	GW	P
POTTER ETAL 2	35	150S	080E	4300730737	12959	Fee	GW	P
HELPER FED G-5	30	130S	110E	4300730770	13655	Federal	GW	P
HELPER FED G-6	30	130S	110E	4300730771	13656	Federal	GW	P
HELPER FED G-7	31	130S	110E	4300730772	13657	Federal	GW	P
HELPER FED G-8	31	130S	110E	4300730773	13658	Federal	GW	P
GOODALL A-1	06	140S	110E	4300730774	13348	Fee	GW	P
HELPER FED E-8	19	130S	100E	4300730776	13624	Federal	GW	P
HAUSKNECHT A-1	21	130S	100E	4300730781	13347	Fee	GW	P
HELPER FED E-9	19	130S	100E	4300730868	13628	Federal	GW	P
HELPER FED E-5	20	130S	100E	4300730869	13625	Federal	GW	P
HELPER FED E-6	20	130S	100E	4300730870	13631	Federal	GW	P
HELPER FED E-10	30	130S	100E	4300730871	13629	Federal	GW	P
SACCOMANNO A-1	30	130S	100E	4300730872	13622	Fee	GW	P
HELPER FED E-11	30	130S	100E	4300730873	13630	Federal	GW	P
BLACKHAWK A-2	29	130S	100E	4300730886	13783	Fee	GW	P
BLACKHAWK A-3	20	130S	100E	4300730914	13794	Fee	GW	P
BLACKHAWK A-4	21	130S	100E	4300730915	13795	Fee	GW	P
BLACKHAWK A-1X	20	130S	100E	4300730923	13798	Fee	GW	P
HELPER STATE 12-3	03	140S	100E	4300750070	17824	State	GW	P
HELPER STATE 32-3	03	140S	100E	4300750071	17827	State	GW	P
HELPER STATE 32-36	36	130S	100E	4300750072	17825	State	GW	P
VEA 32-32	32	130S	100E	4300750075	17826	Fee	GW	P
CLAWSON SPRING ST E-7	07	160S	090E	4301530392	12960	State	GW	P
CLAWSON SPRING ST E-8	07	160S	090E	4301530394	12964	State	GW	P
CLAWSON SPRING ST E-3	06	160S	090E	4301530403	12965	State	GW	P
CLAWSON SPRING ST E-1	06	160S	090E	4301530404	12966	State	GW	P
CLAWSON SPRING ST E-2	06	160S	090E	4301530405	12961	State	GW	P
CLAWSON SPRING ST E-4	06	160S	090E	4301530406	12962	State	GW	P
CLAWSON SPRING ST C-1	12	160S	080E	4301530410	12617	State	GW	P
CLAWSON SPRING ST B-1	01	160S	080E	4301530427	12845	State	GW	P
CLAWSON SPRING ST B-2	01	160S	080E	4301530428	12846	State	GW	P
CLAWSON SPRING ST B-3	01	160S	080E	4301530429	12848	State	GW	P
CLAWSON SPRING ST B-4	01	160S	080E	4301530430	12854	State	GW	P
CLAWSON SPRING ST B-5	12	160S	080E	4301530431	12963	State	GW	P
CLAWSON SPRING ST B-8	11	160S	080E	4301530432	12863	State	GW	P
CLAWSON SPRING ST B-9	11	160S	080E	4301530433	12864	State	GW	P
CLAWSON SPRING ST C-2	12	160S	080E	4301530434	12850	State	GW	P

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)
Effective1-April-2013

Well Name	Sec	Twnshp	Range	API	Entity No.	Lease Type	Well Type	Well status
CLAWSON SPRING ST C-4	14	160S	080E	4301530435	13199	State	GW	P
CLAWSON SPRING ST B-7	11	160S	080E	4301530460	12967	State	GW	P
CLAWSON SPRING ST C-6	14	160S	080E	4301530461	13355	State	GW	P
CLAWSON SPRING ST C-3	12	160S	080E	4301530463	12968	State	GW	P
CLAWSON SPRING ST B-6	11	160S	080E	4301530465	12969	State	GW	P
CLAWSON SPRING ST H-1	13	160S	080E	4301530466	13323	State	GW	P
CLAWSON SPRING ST H-2	13	160S	080E	4301530467	12955	State	GW	P
CLAWSON SPRING ST IPA-1	10	160S	080E	4301530468	12956	Fee	GW	P
CLAWSON SPRING ST IPA-2	15	160S	080E	4301530469	13200	Fee	GW	P
CLAWSON SPRING ST E-5	07	160S	090E	4301530470	12971	State	GW	P
CLAWSON SPRING ST G-1	02	160S	080E	4301530471	13014	State	GW	P
CLAWSON SPRING ST F-2	03	160S	080E	4301530472	13282	State	GW	P
CLAWSON SPRING ST F-1	03	160S	080E	4301530473	13278	State	GW	P
CLAWSON SPRING ST E-6	07	160S	090E	4301530474	13052	State	GW	P
CLAWSON SPRING ST G-2	02	160S	080E	4301530475	12957	State	GW	P
CLAWSON SPRING ST M-1	02	160S	080E	4301530488	13201	State	GW	P
CLAWSON SPRING ST K-1	02	160S	080E	4301530489	13202	State	GW	P
SHIMMIN TRUST 3	14	120S	100E	4300730119	11096	Fee	GW	PA
SHIMMIN TRUST 1	11	120S	100E	4300730120	11096	Fee	GW	PA
SHIMMIN TRUST 2	14	120S	100E	4300730121	11096	Fee	GW	PA
SHIMMIN TRUST 4	11	120S	100E	4300730123	11096	Fee	GW	PA
ST 9-16	16	120S	100E	4300730132	11402	State	GW	PA
ST 2-16	16	120S	100E	4300730133	11399	State	GW	PA
MATTS SUMMIT ST A-1	14	120S	090E	4300730141	11273	State	GW	PA
SLEMAKER A-1	05	120S	120E	4300730158	11441	Fee	GW	PA
JENSEN 16-10	10	120S	100E	4300730161	11403	Fee	GW	PA
JENSEN 7-15	15	120S	100E	4300730165	11407	Fee	GW	PA
SHIMMIN TRUST 12-12	12	120S	100E	4300730168	11420	Fee	GW	PA
JENSEN 11-15	15	120S	100E	4300730175	11425	Fee	GW	PA
BRYNER A-1	11	120S	120E	4300730188	11503	Fee	GW	PA
BRYNER A-1X (RIG SKID)	11	120S	120E	4300730209	11503	Fee	GW	PA
BLACKHAWK A-1	20	130S	100E	4300730885	13798	Fee	D	PA
BLACKHAWK A-5H	20	130S	100E	4300731402	17029	Fee	D	PA
CLAWSON SPRING ST SWD 3	06	160S	090E	4301530476	12978	State	D	PA
HELPER FED C-6	21	130S	100E	4300730683	13008	Federal	GW	S
UTAH 10-415	10	160S	080E	4301530391	12632	State	GW	TA

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
1	4300730189	HELPER FED B-1	NESW	33	13S	10E	Federal	USA UTU 71392	Producing
2	4300730190	HELPER FED A-1	C-SW	23	13S	10E	Federal	USA UTU 58434	Producing
3	4300730213	HELPER FED A-3	SESE	22	13S	10E	Federal	USA UTU 58434	Producing
4	4300730214	HELPER FED C-1	SENE	22	13S	10E	Federal	USA UTU 71391	Producing
5	4300730215	HELPER FED B-5	NENE	27	13S	10E	Federal	USA UTU 71392	Producing
6	4300730216	HELPER FED A-2	NESW	22	13S	10E	Federal	USA UTU 58434	Producing
7	4300730286	HELPER FED D-1	SWNE	26	13S	10E	Federal	USA UTU 68315	Producing
8	4300730378	HELPER FED F-3	NENE	8	14S	10E	Federal	USA UTU 65762	Producing
9	4300730379	HELPER FED F-4	NWNW	9	14S	10E	Federal	USA UTU 65762	Producing
10	4300730508	HELPER FED E-7	SESE	19	13S	10E	Federal	USA UTU 77980	Producing
11	4300730530	HELPER FED B-2	SENW	33	13S	10E	Federal	USA UTU 71392	Producing
12	4300730531	HELPER FED B-3	NESE	33	13S	10E	Federal	USA UTU 71392	Producing
13	4300730532	HELPER FED B-4	NENE	33	13S	10E	Federal	USA UTU 71392	Producing
14	4300730533	HELPER FED B-6	NENW	27	13S	10E	Federal	USA UTU 71392	Producing
15	4300730534	HELPER FED B-7	NESW	27	13S	10E	Federal	USA UTU 71392	Producing
16	4300730535	HELPER FED B-8	SESE	27	13S	10E	Federal	USA UTU 71392	Producing
17	4300730536	HELPER FED B-9	SENW	34	13S	10E	Federal	USA UTU 71392	Producing
18	4300730537	HELPER FED B-10	NWNE	34	13S	10E	Federal	USA UTU 71392	Producing
19	4300730538	HELPER FED B-11	SESW	34	13S	10E	Federal	USA UTU 71392	Producing
20	4300730539	HELPER FED B-12	NESE	34	13S	10E	Federal	USA UTU 71392	Producing
21	4300730540	HELPER FED B-13	SWSE	28	13S	10E	Federal	USA UTU 71392	Producing
22	4300730541	HELPER FED B-14	SWSW	28	13S	10E	Federal	USA UTU 71392	Producing
23	4300730542	HELPER FED D-2	SWNW	26	13S	10E	Federal	USA UTU 68315	Producing
24	4300730543	HELPER FED D-3	SESW	26	13S	10E	Federal	USA UTU 68315	Producing
25	4300730544	HELPER FED D-4	NWNW	35	13S	10E	Federal	USA UTU 68315	Producing
26	4300730545	HELPER FED D-5	SESW	35	13S	10E	Federal	USA UTU 68315	Producing
27	4300730546	HELPER FED D-6	NWSE	35	13S	10E	Federal	USA UTU 68315	Producing
28	4300730547	HELPER FED E-1	NESE	29	13S	10E	Federal	USA UTU 71675	Producing
29	4300730548	HELPER FED E-2	SESW	29	13S	10E	Federal	USA UTU 71675	Producing
30	4300730549	HELPER FED H-1	NENW	1	14S	10E	Federal	USA UTU 72352	Producing
31	4300730550	HELPER FED H-2	SESW	1	14S	10E	Federal	USA UTU 72352	Producing
32	4300730556	OLIVETO FED A-2	NESW	8	14S	10E	Federal	USA UTU 65762	Producing
33	4300730557	HELPER FED F-1	SESE	8	14S	10E	Federal	USA UTU 65762	Producing
34	4300730558	SMITH FED A-1	NWSW	9	14S	10E	Federal	USA UTU 65762	Producing
35	4300730593	HELPER FED A-6	SESE	23	13S	10E	Federal	USA UTU 58434	Producing
36	4300730594	HELPER FED D-7	C-SE	26	13S	10E	Federal	USA UTU 68315	Producing
37	4300730595	HELPER FED D-8	NENE	35	13S	10E	Federal	USA UTU 68315	Producing
38	4300730677	HELPER FED A-5	NENE	23	13S	10E	Federal	USA UTU 58434	Producing
39	4300730678	HELPER FED A-7	SENW	22	13S	10E	Federal	USA UTU 58434	Producing
40	4300730679	HELPER FED B-15	SENE	28	13S	10E	Federal	USA UTU 71392	Producing
41	4300730680	HELPER FED B-16	SWNW	28	13S	10E	Federal	USA UTU 71392	Producing
42	4300730681	HELPER FED C-2	NENW	24	13S	10E	Federal	USA UTU 71391	Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
43	4300730682	HELPER FED C-4	NWSW	24	13S	10E	Federal	USA UTU 71391	Producing
44	4300730683	HELPER FED C-6	SWSE	21	13S	10E	Federal	USA UTU 71391	Shut-In
45	4300730684	HELPER FED C-7	SESW	21	13S	10E	Federal	USA UTU 71391	Producing
46	4300730685	HELPER FED D-9	NWNW	25	13S	10E	Federal	USA UTU 68315	Producing
47	4300730686	HELPER FED D-10	SENE	25	13S	10E	Federal	USA UTU 68315	Producing
48	4300730687	HELPER FED D-11	SESW	25	13S	10E	Federal	USA UTU 68315	Producing
49	4300730688	HELPER FED D-12	SESE	25	13S	10E	Federal	USA UTU 68315	Producing
50	4300730689	HELPER FED E-4	NWNE	29	13S	10E	Federal	USA UTU 71675	Producing
51	4300730692	HELPER FED A-4	SWNW	23	13S	10E	Federal	USA UTU 58434	Producing
52	4300730693	HELPER FED C-5	SWNE	24	13S	10E	Federal	USA UTU 71391	Producing
53	4300730694	HELPER FED G-1	C-NW	30	13S	11E	Federal	USA UTU 71677	Producing
54	4300730695	HELPER FED G-2	SWSW	30	13S	11E	Federal	USA UTU 71677	Producing
55	4300730696	HELPER FED G-3	SENW	31	13S	11E	Federal	USA UTU 71677	Producing
56	4300730697	HELPER FED G-4	SESW	31	13S	11E	Federal	USA UTU 71677	Producing
57	4300730698	HELPER FED H-3	SWNE	1	14S	10E	Federal	USA UTU 72352	Producing
58	4300730699	HELPER FED H-4	NESE	1	14S	10E	Federal	USA UTU 72352	Producing
59	4300730702	HELPER FED C-3	SESW	24	13S	10E	Federal	USA UTU 71391	Producing
60	4300730770	HELPER FED G-5	SWNE	30	13S	11E	Federal	USA UTU 71677	Producing
61	4300730771	HELPER FED G-6	SWSE	30	13S	11E	Federal	USA UTU 71677	Producing
62	4300730772	HELPER FED G-7	NWNE	31	13S	11E	Federal	USA UTU 71677	Producing
63	4300730773	HELPER FED G-8	NESE	31	13S	11E	Federal	USA UTU 71677	Producing
64	4300730776	HELPER FED E-8	SENE	19	13S	10E	Federal	USA UTU 77980	Producing
65	4300730868	HELPER FED E-9	SESW	19	13S	10E	Federal	USA UTU 77980	Producing
66	4300730869	HELPER FED E-5	SWSW	20	13S	10E	Federal	USA UTU 71675	Producing
67	4300730870	HELPER FED E-6	SWNW	20	13S	10E	Federal	USA UTU 71675	Producing
68	4300730871	HELPER FED E-10	NENW	30	13S	10E	Federal	USA UTU 71675	Producing
69	4300730873	HELPER FED E-11	NWNE	30	13S	10E	Federal	USA UTU 71675	Producing
70	4300730119	SHIMMIN TRUST 3	SENW	14	12S	10E	Fee (Private)		Plugged and Abandoned
71	4300730120	SHIMMIN TRUST 1	SESE	11	12S	10E	Fee (Private)		Plugged and Abandoned
72	4300730121	SHIMMIN TRUST 2	SENE	14	12S	10E	Fee (Private)		Plugged and Abandoned
73	4300730123	SHIMMIN TRUST 4	SESW	11	12S	10E	Fee (Private)		Plugged and Abandoned
74	4300730158	SLEMAKER A-1	SWNE	5	12S	12E	Fee (Private)		Plugged and Abandoned
75	4300730161	JENSEN 16-10	SESE	10	12S	10E	Fee (Private)		Plugged and Abandoned
76	4300730165	JENSEN 7-15	SWNE	15	12S	10E	Fee (Private)		Plugged and Abandoned
77	4300730168	SHIMMIN TRUST 12-12	NWSW	12	12S	10E	Fee (Private)		Plugged and Abandoned
78	4300730175	JENSEN 11-15	NESW	15	12S	10E	Fee (Private)		Plugged and Abandoned
79	4300730188	BRYNER A-1	NESE	11	12S	12E	Fee (Private)		Plugged and Abandoned
80	4300730209	BRYNER A-1X (RIG SKID)	NESE	11	12S	12E	Fee (Private)		Plugged and Abandoned
81	4300730348	BIRCH A-1	NWSW	5	14S	10E	Fee (Private)		Producing
82	4300730352	CHUBBUCK A-1	NESE	31	13S	10E	Fee (Private)		Producing
83	4300730353	VEA A-1	SWNW	32	13S	10E	Fee (Private)		Producing
84	4300730354	VEA A-2	NENE	32	13S	10E	Fee (Private)		Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
85	4300730355	VEA A-3	SESW	32	13S	10E	Fee (Private)		Producing
86	4300730356	VEA A-4	NWSE	32	13S	10E	Fee (Private)		Producing
87	4300730372	BIRCH A-2	NWNW	8	14S	10E	Fee (Private)		Producing
88	4300730570	SE INVESTMENTS A-1	NESE	6	14S	10E	Fee (Private)		Producing
89	4300730586	HARMOND A-1	SENE	7	14S	10E	Fee (Private)		Producing
90	4300730604	CHUBBUCK A-2	SENW	6	14S	10E	Fee (Private)		Producing
91	4300730726	CLAWSON SPRING ST J-1	SESW	35	15S	8E	Fee (Private)		Producing
92	4300730727	PIERUCCI 1	SENW	35	15S	8E	Fee (Private)		Producing
93	4300730728	POTTER ETAL 1	SWNE	35	15S	8E	Fee (Private)		Producing
94	4300730737	POTTER ETAL 2	NESE	35	15S	8E	Fee (Private)		Producing
95	4300730774	GOODALL A-1	NWSW	6	14S	11E	Fee (Private)		Producing
96	4300730781	HAUSKNECHT A-1	SWNW	21	13S	10E	Fee (Private)		Producing
97	4300730872	SACCOMANNO A-1	NESE	30	13S	10E	Fee (Private)		Producing
98	4300730885	BLACKHAWK A-1	SESE	20	13S	10E	Fee (Private)		Plugged and Abandoned
99	4300730886	BLACKHAWK A-2	NWNW	29	13S	10E	Fee (Private)		Producing
100	4300730914	BLACKHAWK A-3	SENE	20	13S	10E	Fee (Private)		Producing
101	4300730915	BLACKHAWK A-4	NENE	21	13S	10E	Fee (Private)		Producing
102	4300730923	BLACKHAWK A-1X	SESE	20	13S	10E	Fee (Private)		Producing
103	4300731402	BLACKHAWK A-5H	NENE	20	13S	10E	Fee (Private)		Plugged and Abandoned
104	4300750075	VEA 32-32	SWNE	32	13S	10E	Fee (Private)		Producing
105	4301530468	CLAWSON SPRING ST IPA-1	SESE	10	16S	8E	Fee (Private)		Producing
106	4301530469	CLAWSON SPRING ST IPA-2	NENE	15	16S	8E	Fee (Private)		Producing
107	4300730132	ST 9-16	NESE	16	12S	10E	State	ML-44443	Plugged and Abandoned
108	4300730133	ST 2-16	NWNE	16	12S	10E	State	ML-44443	Plugged and Abandoned
109	4300730141	MATTS SUMMIT ST A-1	NWNW	14	12S	9E	State	ML-44496	Plugged and Abandoned
110	4300730349	HELPER ST A-1	SENW	3	14S	10E	State	ST UT ML 45805	Producing
111	4300730350	HELPER ST D-7	NWSW	4	14S	10E	State	ST UT ML 45804	Producing
112	4300730357	HELPER ST A-8	NWSE	2	14S	10E	State	ST UT ML 45805	Producing
113	4300730358	HELPER ST A-3	NWNW	2	14S	10E	State	ST UT ML 45805	Producing
114	4300730359	HELPER ST A-4	NWNE	2	14S	10E	State	ST UT ML 45805	Producing
115	4300730360	HELPER ST A-7	NESW	2	14S	10E	State	ST UT ML 45805	Producing
116	4300730362	HELPER ST A-2	NENE	3	14S	10E	State	ST UT ML 45805	Producing
117	4300730363	HELPER ST A-5	NESW	3	14S	10E	State	ST UT ML 45805	Producing
118	4300730364	HELPER ST A-6	NESE	3	14S	10E	State	ST UT ML 45805	Producing
119	4300730365	HELPER ST D-4	SWNW	4	14S	10E	State	ST UT ML 45804	Producing
120	4300730366	HELPER ST D-3	NENE	5	14S	10E	State	ST UT ML 45804	Producing
121	4300730367	HELPER ST D-5	NWNE	4	14S	10E	State	ST UT ML 45804	Producing
122	4300730368	HELPER ST D-8	SESE	4	14S	10E	State	ST UT ML 45804	Producing
123	4300730369	HELPER ST D-2	NENW	5	14S	10E	State	ST UT ML 45804	Producing
124	4300730370	HELPER ST D-6	SESE	5	14S	10E	State	ST UT ML 45804	Producing
125	4300730371	HELPER ST D-1	NENE	6	14S	10E	State	ST UT ML 45804	Producing
126	4300730373	HELPER ST A-9	SENW	10	14S	10E	State	ST UT ML 45805	Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
127	4300730376	HELPER ST B-1	SWNE	9	14S	10E	State	ST UT ML 47556	Producing
128	4300730433	HELPER ST A-10	NWNE	10	14S	10E	State	ST UT ML 45805	Producing
129	4300730434	HELPER ST A-11	SWNW	11	14S	10E	State	ST UT ML 45805	Producing
130	4300730435	HELPER ST A-12	NWSW	10	14S	10E	State	ST UT ML 45805	Producing
131	4300730436	HELPER ST A-13	NESE	10	14S	10E	State	ST UT ML 45805	Producing
132	4300730437	HELPER ST B-2	NESE	9	14S	10E	State	ST UT ML 47556	Producing
133	4300730571	HELPER ST A-14	SESW	11	14S	10E	State	ST UT ML 45805	Producing
134	4300730572	HELPER ST A-15	SENE	11	14S	10E	State	ST UT ML 45805	Producing
135	4300730573	HELPER ST E-1	SESW	36	13S	10E	State	ST UT ML 45802	Producing
136	4300730574	HELPER ST E-2	SWNW	36	13S	10E	State	ST UT ML 45802	Producing
137	4300730592	HELPER ST E-3	NENE	36	13S	10E	State	ST UT ML 45802	Producing
138	4300730597	CLAWSON SPRING ST A-1	SWSE	36	15S	8E	State	ST UT ML 46106	Producing
139	4300730598	HELPER ST E-4	SWSE	36	13S	10E	State	ST UT ML 45802	Producing
140	4300730603	HELPER ST A-16	SWSE	11	14S	10E	State	ST UT ML 45805	Producing
141	4300730635	CLAWSON SPRING ST A-2	NWNW	36	15S	8E	State	ST UT ML 46106	Producing
142	4300730636	CLAWSON SPRING ST A-3	NESW	36	15S	8E	State	ST UT ML 46106	Producing
143	4300730637	CLAWSON SPRING ST A-4	NWNE	36	15S	8E	State	ST UT ML 46106	Producing
144	4300730642	CLAWSON SPRING ST D-5	NENW	31	15S	9E	State	ML-48226	Producing
145	4300730643	CLAWSON SPRING ST D-6	SWSW	31	15S	9E	State	ML-48226	Producing
146	4300730644	CLAWSON SPRING ST D-7	NWNE	31	15S	9E	State	ML-48226	Producing
147	4300730701	CLAWSON SPRING ST D-8	NWSE	31	15S	9E	State	ML-48226	Producing
148	4300750070	HELPER STATE 12-3	SWNW	3	14S	10E	State	ST UT ML 45805	Producing
149	4300750071	HELPER STATE 32-3	SWNE	3	14S	10E	State	ST UT ML 45805	Producing
150	4300750072	HELPER STATE 32-36	SWNE	36	13S	10E	State	ST UT ML 45802	Producing
151	4301530391	UTAH 10-415	NENE	10	16S	8E	State	ST UT ML 48189	Temporarily-Abandoned
152	4301530392	CLAWSON SPRING ST E-7	SENE	7	16S	9E	State	ST UT ML 48220-A	Producing
153	4301530394	CLAWSON SPRING ST E-8	SWSE	7	16S	9E	State	ST UT ML 48220-A	Producing
154	4301530403	CLAWSON SPRING ST E-3	SENE	6	16S	9E	State	ST UT ML 48220-A	Producing
155	4301530404	CLAWSON SPRING ST E-1	SENW	6	16S	9E	State	ST UT ML 48220-A	Producing
156	4301530405	CLAWSON SPRING ST E-2	NESW	6	16S	9E	State	ST UT ML 48220-A	Producing
157	4301530406	CLAWSON SPRING ST E-4	NWSE	6	16S	9E	State	ST UT ML 48220-A	Producing
158	4301530410	CLAWSON SPRING ST C-1	SWNW	12	16S	8E	State	ST UT UO 48209	Producing
159	4301530427	CLAWSON SPRING ST B-1	NENW	1	16S	8E	State	ST UT ML 48216	Producing
160	4301530428	CLAWSON SPRING ST B-2	NWSW	1	16S	8E	State	ST UT ML 48216	Producing
161	4301530429	CLAWSON SPRING ST B-3	NWNE	1	16S	8E	State	ST UT ML 48216	Producing
162	4301530430	CLAWSON SPRING ST B-4	SESE	1	16S	8E	State	ST UT ML 48216	Producing
163	4301530431	CLAWSON SPRING ST B-5	SWSW	12	16S	8E	State	ST UT ML 48216	Producing
164	4301530432	CLAWSON SPRING ST B-8	SENE	11	16S	8E	State	ST UT ML 48216	Producing
165	4301530433	CLAWSON SPRING ST B-9	NWSE	11	16S	8E	State	ST UT ML 48216	Producing
166	4301530434	CLAWSON SPRING ST C-2	SENE	12	16S	8E	State	ST UT UO 48209	Producing
167	4301530435	CLAWSON SPRING ST C-4	SWNW	14	16S	8E	State	ST UT UO 48209	Producing
168	4301530460	CLAWSON SPRING ST B-7	NWSW	11	16S	8E	State	ST UT ML 48216	Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
169	4301530461	CLAWSON SPRING ST C-6	SENE	14	16S	8E	State	ST UT UO 48209	Producing
170	4301530463	CLAWSON SPRING ST C-3	C-SE	12	16S	8E	State	ST UT UO 48209	Producing
171	4301530465	CLAWSON SPRING ST B-6	NENW	11	16S	8E	State	ST UT ML 48216	Producing
172	4301530466	CLAWSON SPRING ST H-1	NENW	13	16S	8E	State	ST UT ML 48217-A	Producing
173	4301530467	CLAWSON SPRING ST H-2	NENE	13	16S	8E	State	ST UT ML 48217-A	Producing
174	4301530470	CLAWSON SPRING ST E-5	NENW	7	16S	9E	State	ST UT ML 48220-A	Producing
175	4301530471	CLAWSON SPRING ST G-1	NWNW	2	16S	8E	State	ST UT ML 46314	Producing
176	4301530472	CLAWSON SPRING ST F-2	NESE	3	16S	8E	State	ST UT ML 48515	Producing
177	4301530473	CLAWSON SPRING ST F-1	SENE	3	16S	8E	State	ST UT ML 48514	Producing
178	4301530474	CLAWSON SPRING ST E-6	SESW	7	16S	9E	State	ST UT ML 48220-A	Producing
179	4301530475	CLAWSON SPRING ST G-2	NESW	2	16S	8E	State	ST UT ML 46314	Producing
180	4301530488	CLAWSON SPRING ST M-1	NWNE	2	16S	8E	State	ST UT ML 47561	Producing
181	4301530489	CLAWSON SPRING ST K-1	SESE	2	16S	8E	State	ST UT ML 46043	Producing